CORPORATION OF GLASGOW

REPORT

OF THE

Medical Officer of Health

City of Glasgow

1940

ORDERED BY THE COMMITTEE ON HEALTH TO BE PRINTED

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CORPORATION PRINTING DEPARTMENT

PREFACE.

The Annual Report for 1940, like its predecessor for 1939, is issued in an abbreviated form ; difficulties due to war conditions have delayed its appearance.

The population of the City, as estimated by the Registrar-General, was 1,045,333 persons at the middle of the year, as compared with 1,128,473 for 1939. This new low figure of population is largely a matter of conjecture and is based on estimated losses and additions—the result of movements of population arising out of the war. As most of those who have left the City for various reasons belong to age groups with a low mortality, the effect will be to raise artificially the death rates for the City itself.

The birth rate of 19·1 per thousand of the population, slightly below that for 1939, was the lowest on record, but the general death rate of 16·8 per thousand was the highest recorded for several years. This high rate was due to the effect of the continued spell of severe weather that prevailed during the early weeks of the year, when the general death rate rose to 41 per thousand of the population during the week ending 27th January, an unusually high figure. Pneumonia, bronchitis, and heart disease increased the death rate among elderly persons, chiefly those over sixty years of age, while pneumonia in the very young increased the infant mortality rate, which was in consequence 95 per thousand births as compared with 80 for the preceding year. The respiratory diseases were responsible for over 2,000 deaths as contrasted with 1,400 in 1939 ; heart disease caused 4,319 deaths as contrasted with 3,398 in the previous year. Pneumonia alone gave rise to 5,824 cases during the year, of which 60 per cent. were treated in hospital. These figures are a measure of the intensity of the severe weather conditions.

As regards infectious diseases generally, the year was marked by a rising wave of diphtheria, an unusually low incidence of scarlet fever, the presence of an outbreak of measles in the summer, a comparative absence of whooping cough, and a relatively high incidence of cerebro-spinal fever, which caused 457 cases and 93 deaths. Diphtheria was responsible for 4,724 cases and 226 deaths, both being unusually high

figures for the City. Although the " gravis " type of organism has been increasing in the City for a number of years, the case mortality of the disease has not increased ; in 1940 it was 4·3 per cent. An Immunisation Campaign was commenced, and some 81,000 children were protected against this disease during the winter of 1940-41.

Pulmonary tuberculosis showed signs of increase. Notifications of pulmonary tuberculosis during 1940 increased by about 20 per cent. over the 1939 figure, while the death rate rose very much to the same extent. There is, however, evidence that the sharp initial rise that took place in 1940 has been followed by a definite slowing down of the rate of increase of pulmonary tuberculosis. This rise relates almost entirely to males between 15 and 45 and to females between 15 and 35 years of age. These are the working ages, and the ages when tuberculosis most often declares itself. There are probably one or two reasons for this increase, but the main reason is to be found in the entry of large numbers of young people into employment ; the probability is that an infection that would have been resisted in normal times gains the upper hand.

I think it is correct to say that the health of the people has been better than was in fact expected in spite of the new factors which the war has introduced, such as new dispositions of population, overcrowding, black-out, hard work, and other influences. The wide movements of sickness and mortality mentioned above have taken place concurrently with the war, though not attributable to it. On the other hand, present conditions may be regarded as contributing to an increased incidence of tuberculosis, a restless behaviour of cerebro-spinal fever, and a rise in the number of deaths due to premature birth.

Observations on the physical condition of school children are reassuring. Education was at first completely dislocated by the big exodus of children from the cities to the country. When a large percentage of the evacuees subsequently returned, school attendance was gradually restored, but under a greatly modified regime. In these circumstances, while general supervision of school children was maintained it was not possible to continue the routine measurements of height and weight, at any rate to an extent that would make them strictly comparable with those of former years. I may, however, mention certain measurements taken in the Glasgow schools between September 1940 and April 1941 of some 6—7,000 boys and the same number of girls at the ages of five and thirteen. All the measurements were an improvement upon those for 1939, particularly in the case of school

entrants. Although evacuation and interference with school attendance disturbed the representative nature of these groups, the results may be accepted as implying that school children have lost none of the improved physical condition that has been so marked a feature in recent years.

Infant life suffered from the cold spell that occurred in the early months of the year and in consequence deaths due to pneumonia, bronchitis, and convulsions tended to rise. This was the general experience throughout the country. Scurvy and the grosser forms of rickets are diseases of the past, but we must be on the watch for their return. Only a handful of cases diagnosed as scurvy were reported. The child welfare staff has an uneasy feeling that mothers may not be getting enough Vitamin C for their infants. Accordingly, the welfare centres are accustomed to make large issues of Vitamin C. tablets, though no one likes this kind of test-tube feeding. With regard to rickets, the impressions of the child welfare staff varied as to its incidence. A detailed survey has therefore been made of the records of over 20,000 children under two years of age visited by the health visitors during the first three months of 1939 and 1941. This survey shows (*a*) that the incidence of rickets for the City as a whole was actually smaller during the latter period, *i.e.*, under war-time conditions; (*b*) that there was a fractional increase of mild rickets in certain of the poorer localities. These cases are occurring among families whose standards are low and who learn little or nothing by experience. Cod liver oil is widely distributed, though not all mothers to whom it is issued actually give it to their children. It may be regarded as a happy circumstance that rickets has been so far kept in check.

The Maternity and Child Welfare Section has devoted much attention to the nutrition of mothers and children and the various problems which arise during war-time. A large amount of propaganda is being carried out in co-operation with the Education Department and the Ministry of Food. The scheme of cooking and catering demonstrations in the homes of the people, inaugurated in co-operation with the domestic science staff of the Education Department at the outbreak of war, has been carried on throughout the year. Such practical instruction is of the greatest benefit to the mothers, and the scheme is worthy of wide application. One of the striking features of child welfare work during the past year is the very great increase in the consumption of milk under the National Milk Scheme. More children than ever before are drinking milk, with manifest benefit to their health. Supplies of special dried milks are still available for distribution to infants at various centres.

The general public health and sanitary work of the department was restored as far as possible to its peace-time functions. At any rate, the dislocations caused by the war were reduced to a minimum and the various services, particularly the personal services, were continued and even strengthened, although the administration of the large casualty branch made very considerable inroads on the time and energy of the staff.

I desire again to acknowledge the work of Mr. William M'Kean, Assistant Secretary, in the preparation of the Report, and of Mr. J. Ritchie as regards the statistical side. Certain of the larger statistical tables, although omitted from the report, have been prepared and will be retained for publication at a later date.

A. S. M. MACGREGOR,
Medical Officer of Health.

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REPORT

OF THE

Medical Officer of Health

FOR THE YEAR

1940

PART I

SECTION I

POPULATION AND VITAL STATISTICS.

The Registrar General has estimated the mean civilian population for 1940 as 1,045,333, as compared with 1,128,473 for 1939, the difference representing those who have left the city to reside elsewhere owing to the war. On the other hand the Registrar General makes a second estimate of 1,098,655 persons as the mean total population. Thus the loss of the normal population of the city amounts to 82,000 persons as between 1939 and 1940, and it will accordingly be necessary to use the reduced figure of 1,045,333 for the purpose of calculating death rates and other vital statistics. The birth rates, marriage rates, etc., will be calculated on the mean total population of 1,098,655 persons As most of those who have left the city to reside outside belong to age groups with a low mortality, the effect will be to raise artificially the death rates for the city itself.

Ward Population.—The estimated ward populations are given in Appendix Table I. Owing to the large drop in the total estimated population, considerable proportionate reductions have had to be made in the estimated populations of each of the municipal wards. Had the information been available as to the number of persons evacuated from each ward, allowance might have been made for this in estimating ward populations. Such a ward distribution, however, has not been kept. The highest ward population is 50,507 in Ruchill, while Shettleston and Tollcross has a population of 45,159, Provan 43,788, and Pollokshields 43,543. Exchange and Blythswood have populations of less than 14,000, while seven other wards have populations below 20,000.

Institutional Population.—The ward distribution of institutional and shipping population is also given in Appendix Table I. The total number resident in hospitals, hostels, common lodging-houses, etc., was 33,115, which compares with 33,544 for the preceding year. Some hospitals and small institutions have been closed, but there are increases in the number of persons in common lodging-houses, especially in the neighbourhood of the docks.

Acreage and Density.—The area of the city remains unchanged at 39,725 acres, but the density is reduced—26 against 28 for the previous year—because of the lower estimated population.

Inhabited and Empty Houses.—The number of occupied houses as at Whitsunday, 1940, was 284,045, which compares with 283,011 for 1939. This increase of 1,034 is explained largely by the completion of houses in Corporation Schemes under the provision made by the Government. For instance, in Yoker and Knightswood Ward the number of occupied houses is greater than in the previous year by 509, while in Pollokshields the increase is 329, Ruchill 321, and Whiteinch 226. There were decreases in the following wards—Parkhead 259, Cowcaddens 141, and Park 111.

Empty houses numbered 1,279, compared with 764 for the preceding year. Of this increase Kelvinside was responsible for 174, Park 71, and Pollokshields 51, almost all of these increases having taken place in houses of five apartments and larger sizes. The changes which have taken place in the various sizes of houses, as compared with a year ago, are given in the following summary:—

	1939.	1940.
One Apartment	225	258
Two Apartments	96	127
Three Apartments	91	105
Four Apartments	84	90
Five Apartments and over	268	699
	764	1,279

Dean of Guild Linings.—No linings were granted by the Dean of Guild Court for the erection of houses during the year to 31st August, 1940. Records for previous years are given in Table II. in the Appendix.

Meteorology.—An abstract of the meteorological observations taken at Springburn Public Park, as supplied by the Parks Department, is given in Table III in the Appendix. The most notable feature of the year was the prolonged excessive cold spell during the early months of the year. The winter, until towards the end of December, 1939, had been more or less normal, but a period of intense frost with some snow set in and lasted for almost two months, and with the presence of fog at times caused a high mortality throughout the country. In many places temperatures below zero were recorded on a number of occasions during January. These readings were the lowest registered since records were begun. The Baltic Sea was frozen over, and it was said that this had not occurred since the fifteenth century.

The lowest temperature recorded in Springburn Park was 5°F. in January, and the average temperature for that month was 29.2°, or about three degrees below freezing point. The highest temperature during the year was 85°F. recorded in June, while the average over the whole year was 46.5°, compared with 47.6° in 1939.

Generally speaking the rest of the year was good, with rain recorded on 210 days and total precipitation of 39.52 inches, both records being below the average of preceding years. The lowest rainfall was 0.78 inches in June, and the highest 5.01 in October. Bright sunshine was recorded on 1,111 hours, which is below the figure of 1,177 for the previous year and less than the average of 1,149 during the last decennium.

Health Lectures.—With the continuation of the black-out there were again no Health Lectures in the form of propaganda during the winter. A number of requests continue to be received for Health Talks where programmes are arranged by guilds, social organisations, etc., and these have been undertaken by the members of the medical staff, mostly during the winter months.

Blind Persons Acts.—The work of the Regional Clinic, although interrupted to a certain extent by the war, was continued on the usual lines, and during the year 477 persons were examined for the first time, of whom 389 were examined at the Clinic and 88 at home. In addition 151 applicants were re-examined, making the total for the year 628. Of the 477 candidates examined, 292 or 61.2 per cent. were certified blind within the meaning of the Act. Of the 477 applicants examined 256 or 53.7 per cent. were resident in Glasgow, compared with 53.7 per cent. for the preceding year.

Legislation.—Most of the Regulations, Circulars, Orders, etc., issued during the year were concerned with air raid precautions, emergency medical services, control of foodstuffs, etc. Many others relative to the work of the Department were Circulars dealing with sampling of rationed foods, preservatives in bacon, etc., maternity services, and tuberculosis. There was also a Circular on diphtheria immunisation and one on inoculation against organisms of the typhoid group.

VITAL STATISTICS.

SUMMARY.

	1938.	1939.	1940.
Population	1,127,825	1,128,473	1,045,333
Acreage	39,725	39,725	39,725
Persons per acre	28	28	26
Number of Inhabited Houses	280,561	283,011	284,045
Deaths—			
Number Registered	16,411	16,382	18,858
After correction for Transfers ...	15,016	15,010	17,603
Births—			
Number Registered	23,193	22,655	21,984
After correction	21,979	21,682	20,965
Death Rate per 1,000 living—All causes ...	13·31	13·30	16·84
Birth Rate per 1,000 living	19·49	19·21	19·08
Deaths under One Year—			
After correction	1,919	1,737	1,983
Per 1,000 Births	87	80	95

Births.—The number of births registered corrected for outward transfer and including those transferred inwards was 20,965 in 1940, compared with 21,682 in 1939 and 21,979 in 1938. The birth rate for 1940, *i.e.* 19.1, is again the lowest on record. The rate for the previous year was 19.2, and in 1938 it was 19.5. Of the total births 1205 were registered as illegitimate, a number which is equivalent to 5.4 per cent. The rate for the previous year was 5.8.

There were 14,615 marriages in 1940, compared with 13,214 in 1939. The marriage rate in 1940 on the *total* estimated population is therefore 13·3 per 1,000, which compares with 11·7 for the previous year. Both these rates are considerably above the average of the previous years.

Deaths.—The total number of deaths registered was 18,858, and after correction for outward and inward transfers the net figure becomes 17,603, which compares with 15,010 in 1939 and 15,016 in 1938. The death rate per 1,000 persons in 1940 was 16·8, compared with 13·3 for

the previous year. This is the highest recorded death rate in the city since 1919; it is accounted for by the relative high mortality in the first quarter of the year. Some part of the increase, however, may also be due to the fact that the death rate is calculated on the much lower civil population estimated by the Registrar General referred to in a previous paragraph.

The death rates as well as the birth rates for each of the municipal wards are given in Appendix Table IV. The death rates in two of the wards—Exchange 23·4 and Blythswood 22·8—are considerably in excess of the average for the city; in Kingston Ward the rate this year is 17·8 as against 11·6 for the previous year.

GLASGOW.—ALL CAUSES.—DEATH RATE PER 1,000 LIVING.

1881-1890	24·22	1931-1935	13·88
1891-1900	21·53	1936	14·65
1901-1910	19·56	1937	14·63
1911-1920	16·36	1938	13·31
1921-1925	15·49,	1939	13·30
1926-1930	15·04	1940	16·84

CAUSES OF DEATH.

In order that a comparison may be established with other large towns in England and elsewhere the short list of the International Classification of Deaths has always been adopted. Certain alterations in the International Classification took effect as from the beginning of 1940. Changes also in the rules for classification of general causes of death have had the effect of transferring certain deaths to other headings. The following notes indicate the effect of these alterations:—

1940 Classification.		Former Classification.
Cerebro-spinal Fever ...	93	Includes Other Nervous Diseases—2; Other Respiratory Diseases—1; Other Defined Causes—1.
Tuberculosis of Respiratory System ...	1,182	Includes Heart Disease—3; Pneumonia—1; Other Respiratory Diseases—6.
Syphilitic Disease ...	93	Includes Other Nervous Diseases—1; Aneurysm—38; Other Syphilitic Diseases—1.
Intra-cranial Vascular Lesions (Cerebral Haemorrhage, &c.) ...	1,332	Includes Arterio-sclerosis—213; Other Circulatory Diseases—35.

1940 Classification.		Former Classification.
Other Nervous Diseases ...	352	Includes Meningitis (non-tuberculosis)—34.
Heart Disease	4,319	Includes Arterio-sclerosis—132; Other Circulatory Diseases—29; Senility—1; Other Defined Causes—3.
Other Diseases of Circulatory System ...	337	Includes Arterio-sclerosis—207.
Diarrhoea (under 2 years)	307	Includes Other Digestive Diseases—7; Congenital Debility—1.
Other Digestive Diseases	368	Includes Cirrhosis of Liver—33; Other Diseases of Liver—36; Senility—1.
Nephritis	349	Includes Arterio-sclerosis—7; Other Circulatory Diseases—6.
Premature Birth	440	Includes Pneumonia—3; Diarrhoea—1.
Congenital Malformations	414	Includes Meningitis—1; Bronchitis—3; Pneumonia—2; Nephritis—1.

The principal causes of death are summarised in the following table:—

SUMMARY OF DEATH RATES PER MILLION FROM PRINCIPAL CAUSES.

	1938.	1939.	1940.
General Diseases—			
(*a*) Infectious	777	614	748
(*b*) Tuberculous—			
(1) Phthisis	851	861	1,131
(2) Others	242	225	316
(*c*) Malignant (Cancer, &c.)	1,487	1,427	1,693
Diseases of the Nervous System ...	1,158	1,232	1,611
Diseases of the Circulatory System ...	3,528	3,707	4,453
Diseases of Respiration	1,464	1,245	2,081
Congenital defects and malformations (including Premature Birth)	718	718	817
Violence	566	683	842
All other causes	2,523	2,589	3,148
All causes	13,314	13,301	16,840

This statement shows the group causes of death as rates per million based on the new short international classification of deaths as given in Appendix Table V. Here again the increase in the death rate during the exceptionally cold spell has adversely affected the mortality from various causes. The higher mortality from infectious diseases was largely due to the increased death rate from diphtheria; the rate per million in 1940 being 216 against 144 in 1939 and 117 in 1938. The death rate from measles was 93 as against 2 in 1939, but the mortality from whooping cough on the other hand was much lower, the respective mortalities being 19 and 133 per million of the population.

Both pulmonary and non-pulmonary forms of tuberculosis were more fatal in 1940 than in previous years. The rate for pulmonary tuberculosis—1,131—was the highest recorded for over twenty years. In the first quarter of the year, when deaths from all causes were much increased by the severe weather, deaths from pulmonary tuberculosis were 109 more than in the corresponding period of the previous year, while the increase was 65 in the second quarter. The figures for all the quarters of 1940 were in excess of those of the corresponding period of the preceding year.

The death rate from non-pulmonary tuberculosis was 316 per million and was the highest since 1931. Part of the increase was caused by tuberculous meningitis, the rate for which was 185 against 136 in 1939. Other forms of the disease, however, were also slightly more fatal.

The mortality from diseases of the Central Nervous System—1,611—cannot readily be compared with previous years, for this group now includes arterio-sclerosis associated with intra-cranial lesions of vascular origin previously included under "Circulatory Diseases." On the old classification, however, the mortality rate for cerebral haemorrhage would have been 1,038 against 924 in 1939, while the corresponding rates for arterio-sclerosis were 536 and 489 per million.

The death rate from diseases of the Circulatory System of 4,453 is the highest for many years because of the high prevalence of influenza and pneumonia during the exceptionally cold spell in the early months of the year. The adverse effects of that severe weather is also reflected in the high mortality from other causes of death.

The effect of the cold spell is shown in the following quarterly summary of deaths from all causes:—

	1940.	1939.
First quarter	6,815	4,500
Second quarter	3,820	3,532
Third quarter	3,157	3,201
Fourth quarter	3,803	3,702

Again the weather conditions and the reduced estimate of the population may be regarded as in large part responsible for the increased mortality from cancer, for although many of the population were evacuated they were mostly mothers and young children, whereas cancer is mostly a disease of older ages. The 1940 death rate was 1,693 per million, the highest on record, the increase affecting both sexes equally. Cancer of the various parts of the body is analysed in the following statistical summary. Cancer of the skin has risen by more than 50 per cent., and of the respiratory organs by more than 30 per cent.

GLASGOW: DEATHS FROM CANCER.

Site of Lesion.	Year 1940. Males.	Females.	Both Sexes.	Year 1939. Males.	Females.	Both Sexes.
Buccal Cavity and Pharynx	71	12	83	64	10	74
Digestive Organs and Peritoneum—						
(*a*) Oesophagus	48	19	67	44	13	57
(*b*) Stomach and Duodenum	217	177	394	201	154	355
(*c*) Rectum	70	55	125	84	53	137
(*d*) Liver and Biliary Passages	41	39	80	34	37	71
(*e*) Pancreas	22	24	46	29	23	52
(*f*) Peritoneum	8	1	9	2	5	7
(*g*) Other Digestive Organs	112	153	265	118	137	255
Respiratory Organs ...	124	43	167	90	43	133
Uterus	—	118	118	—	116	116
Other Female Genital Organs	—	32	32	—	35	35
Breast	4	144	148	—	140	140
Male Genito-Urinary Organs	54	—	54	65	—	65
Skin	14	9	23	9	6	15
Other or Unspecified Organs	88	71	159	45	53	98
Totals	873	897	1,770	785	825	1,610

Age and Sex Distribution of Death.—The age and sex distribution is given in Appendix VI. Male deaths total 9,252, and those of females 8,351, the increase of female deaths above those of the previous year being relatively considerable. This increase is probably due to the larger number of females surviving to older ages who would be affected by adverse weather conditions. The male deaths exceed the female deaths for most of the causes, although there were more female deaths from acute infections. The same observation applies to encephalitis, 15 against 7 males; diabetes, 157 against 47; intra-cranial vascular lesions, 722 against 610; nephritis, 184 against 165. With regard to age distribution, the only ages at which the male deaths are lower than the females are at various quinquennia between 5 and 35 and again at ages over 75 years.

Deaths occurring in the City and transferred to other authorities numbered 1,930 and inward transfers 675, compared with the respective figures of 1,985 and 613 for the previous year.

The deaths occurring in hospitals, nursing homes, and other institutions compared with the respective figures for the preceding year were as follows:—

	1940.	1939.
Local Authority General Hospitals and Poor-houses	3,845	3,402
Local Authority Fever Hospitals and Sanatoria	1,525	1,224
Local Authority Mental Hospitals	192	196
Voluntary Hospitals and Infirmaries	2,405	2,348
Nursing Homes, &c.	416	297
Totals	8,383	7,467
Percentage of all deaths	47·5	49·2

SECTION II.

MATERNITY AND CHILD WELFARE.

Despite the requirements of Civil Defence, which have affected both clinic buildings and personnel, the Maternity and Child Welfare Services have been carried on without interruption during 1940.

One additional clinic was opened during the year. A large combined clinic had been planned to serve the needs of the Pollokshaws, Carnwadric and Nitshill areas of the city, but the outbreak of war led to the postponement of these arrangements. To meet the increasing demand for ante-natal and child welfare services in these areas a temporary child welfare centre was established in shop premises in which three sessions are now held weekly.

The attendances of ante-natal patients at the Corporation child welfare clinic ante-natal sessions showed a slight decrease during 1940, but this decrease was more than offset by the large number of attendances at the out-patient maternity departments of three of the municipal hospitals. It is therefore satisfactory to note that the total number of new patients attending Corporation ante-natal clinics increased from 9,112 in 1939 to 10,374 in 1940. This figure represents nearly half the births in Glasgow. A further 3,640 expectant mothers attended the clinic at the Royal Maternity Hospital.

An analysis of the attendances at the infant and toddler sessions, however, shows a decrease in the number of young children under supervision at the various centres. Some decrease was inevitable owing to the number of young children who had been evacuated from the city, but at certain of the centres there was an additional falling off of attendances due to the cessation of the supply of milk to necessitous mothers and children and the introduction of the National Milk Scheme.

The work of health education and social welfare carried on by the Health Visitors in the homes of the people has gone on unceasingly. Far from any curtailment of this work owing to war conditions, it is gratifying to report that additional appointments were made to the child welfare health visiting staff. Health visitors occupy a key position

in our public health services. From the closeness of their contact with the homes and daily lives of the people they are contributing in no small degree to the spirit of the nation. It is from them that much valuable information is obtained with regard to the welfare of families, and particularly the condition of children.

The Maternity and Child Welfare Section has devoted much attention to the nutrition of mothers and children and the various problems which arise during war-time. A large amount of propaganda is being carried out in co-operation with the Education Department and the Ministry of Food. The scheme of cooking and catering demonstrations in the homes of the people, inaugurated in co-operation with the domestic science staff of the Education Department at the outbreak of war, has been carried on throughout the year. Such practical instruction is of the greatest benefit to the mothers, and the scheme is worthy of wide application.

Continuous study of the effects of war on the state of health of our children has been carried out, and it is gratifying to be able to report that there is no evidence of an increase in the incidence of either of the two deficiency diseases—scurvy and rickets. Particular attention has been paid to the supply of Vitamin C for infants and young children, and mothers have been instructed about the various substitutes for orange juice. Large supplies of cod liver oil have been distributed from the clinics and on the recommendation of the health visitors. One of the striking features of child welfare work during the past year is the very great increase in the consumption of milk under the National Milk Scheme. More children than ever before are drinking milk, with manifest benefit to their health. Supplies of special dried milks are still available for distribution to infants at the various centres.

The three day nurseries which were all closed at the outbreak of war were re-opened during 1940—two in the original buildings and one in nursery school premises belonging to the Education Department. These three institutions are filled to more than capacity, and there are long waiting lists for admission. To meet this increased demand for day nursery accommodation, arrangements are being expedited to open war-time day nurseries under the Government scheme.

INFANT MORTALITY.

The number of infant deaths after corrections for transfers was 1,983, compared with 1,731 in the previous year. This figure gives an infant mortality for the year of 95 per 1,000 births, which compares unfavourably with that for last year, when the rate was 80—the lowest on record in Glasgow. The rates for the past eight years are given in the following summary, which shows that in six of these the rate has been below 100:—

1934	-	-	98	1937	-	-	104
1935	-	-	98	1938	-	-	87
1936	-	-	109	1939	-	-	80
			1940	-	-	95	

The main cause of the increase in infant deaths in 1940 was the high incidence of deaths from pneumonia, particularly during the first quarter. In January and February weather conditions were extremely severe, and the number of deaths during these months from pneumonia and bronchitis were twice as many as for the corresponding period in 1939. This is apparent in the following tables of rates of deaths for each sex since the period 1911-15:—

Males—	Rate per 1,000 Births.									
CAUSES OF DEATH.	1911-15	1916-20	1921-25	1926-30	1931-35	1936	1937	1938	1939	1940
I. Immaturity ...	46	46	40	43	43	46	46	42	42	45
II. Diseases of Respiratory System	30	27	30	32	30	29	28	22	17	28
III. Diseases of Digestive System ...	23	18	15	15	17	24	20	17	17	16
IV. Diseases of Nervous System ...	—	8	7	6	4	4	4	4	3	5
V. Tuberculous Diseases	6	3	3	2	1	2	1	1	1	1
VI. Infectious Diseases	18	11	15	14	12	9	7	7	4	5
VII. Suffocation ...	1	—	—	—	—	—	—	—	—	—
VIII. All other causes	12	10	9	7	7	7	8	6	4	6
All causes ...	146	123	119	119	115	121	114	99	88	106

Females—	Rate per 1,000 Births.									
CAUSES OF DEATH.	1911-15	1916-20	1921-25	1926-30	1931-35	1936	1937	1938	1939	1940
I. Immaturity ...	36	36	32	33	33	36	38	31	32	35
II. Diseases of Respiratory System	24	21	22	24	23	25	24	20	14	23
III. Diseases of Digestive System ...	19	14	10	11	12	17	14	10	13	12
IV. Diseases of Nervous System ...	8	6	5	4	3	5	2	3	3	3
V. Tuberculous Diseases	4	3	2	2	1	1	1	1	1	1
VI. Infectious Diseases	18	11	14	12	11	7	9	6	6	4
VII. Suffocation ...	1	—	1	—	—	1	—	—	—	—
VIII. All other causes	9	9	7	6	5	5	6	4	3	5
All causes ...	119	100	93	92	88	97	94	75...	72	83
Ratio—Males to 100 Females	123	123	128	128	131	125	121	132	122	128

The rate for males due to diseases of the respiratory system for the whole year was 28, as compared with 17 for the previous year, while the corresponding rates for females were 23 and 14 respectively. Adverse conditions of this nature also affected the mortality from other defined causes, particularly the immaturity group of deaths, the rate for males being 45 and for females 35, compared with the corresponding figures of 42 and 32 in 1939.

Diseases of the digestive group at 16 for males and 12 for females were both less by one, but deaths from diseases of the nervous system were more numerous among males than has been the case since 1933. The infant death rate for the tuberculous diseases has remained the same for the past four or five years—one for each sex—and although the mortality from infectious diseases among males at 5 was slightly above that for the previous year the death rate for both sexes is below the average of preceding years. The detailed causes of death for each sex and age are given in Appendix Table VIII.

In Table VII in the Appendix is given the number of infant deaths in each municipal ward, with the respective death rates per thousand births in 1940 in comparison with the two preceding years. With the rate for the city considerably above that of preceding years, the ward mortalities this year show considerable disparities. Most of the ward rates were above those of the preceding year with the exception of Springburn, where the rate was 71 against 78 ; Blythswood, 88 against 141 ; and Kingston, 94 against 99 ; while Pollokshaws was 64 compared with 66. All the other wards were in excess ; the highest rate was 151 in Exchange, followed by 132 in Gorbals, 124 in Dalmarnock, and 121 in Cowcaddens. Six other wards had mortalities in excess of 100.

NOTIFICATION OF BIRTHS.

Nature of Attendance at Births.—The proportion of births medically attended fell from 48·6 per cent. in 1914 to 40·1 in 1925. Since then it has increased, and in 1940 the proportion was 56·0.

Still-Births.—The number of still-births known to occur in Glasgow usually averages about 4 per cent. of the total births. During 1940 there were 932 still-births, equal to a rate of 4·3 per cent. Of the medically attended births, there were 175 still-births among home cases, representing a rate of 3·6, and 486 in institutions, equal to a rate of 6·7. Together, the rate indicated is 5·4. Among non-medically attended births there were 271, which is equivalent to a rate of 2·8.

CHILD WELFARE SCHEME.

With the addition of the new subsidiary clinic in 33 Harriet Street, Pollokshaws, the number of child welfare centres is now 15, against 14 formerly, but the number of weekly sessions carried on in them remains at 92, the same as for the previous year. These include 29 ante-natal clinics, 58 child welfare, and 5 for ultra-violet ray treatment.

In addition to these, clinics continue to be conducted at Elderpark Child Welfare Centre and the Royal Maternity Hospital. The time-table of clinics is now as follows:—

LIST OF MATERNITY AND CHILD WELFARE CLINICS.

	9 a.m.	1.30 p.m.
ONDAY,	15 Glenbarr Street, Provan.	15 Glenbarr Street, Provan (Ante-natal).
	106 Orr Street.	33 Richard Street
	150 Wellshot Road, Shettleston.	1 Burgh Hall Street, Partick (Ante-natal).
	26 Florence Street (—1 year).	60 Avenuepark Street.
	2 Summertown Road, Govan (Ante-natal).	106 Orr Street.
	20 Arklet Road, Elder Park (Ante-natal).	150 Wellshot Road, Shettleston (Ante-natal).
	33 Richard Street (Ante-natal).	26 Florence Street (—1 year).
	1 Burgh Hall Street, Partick (—1 year).	2 Summertown Road, Govan (Ultra-Violet Ray).
	26 Florence Street (Ante-natal)	614 Dobbie's Loan (Ante-natal).
		194 Fernbank Street, Springburn.
		15 Glenbarr Street (Ultra-Violet Ray).
UESDAY,	33 Richard Street (1-5 years).	33 Richard Street (Ante-natal).
	194 Fernbank Street, Springburn.	1 Burgh Hall Street, Partick (—1 year).
	60 Avenuepark Street (Ante-natal).	614 Dobbie's Loan (Ante-natal).
	150 Wellshot Road, Shettleston.	2 Summertown Road, Govan.
	15 Glenbarr Street, Provan.	106 Orr Street.
	2 Summertown Road, Govan.	150 Wellshot Road, Shettleston.
	106 Orr Street.	26 Florence Street (Ante-natal).
	614 Dobbie's Loan.	20 Arklet Road, Elder Park (Ante-natal).
	33 Harriet Street	194 Fernbank Street, Springburn.
		26 Florence Street.
EDNESDAY,	33 Richard Street (—1 year).	18 Plean Street, Blawarthill (Ante-natal).
	60 Avenuepark Street.	194 Fernbank Street, Springburn (Ante-natal).
	614 Dobbie's Loan.	106 Orr Street.
	18 Plean Street, Blawarthill (1-5 years).	26 Florence Street (Ante-natal).
	106 Orr Street (Ante-natal).	2 Summertown Road, Govan.
	26 Florence Street (1-5 years).	132 Weir Street.
	132 Weir Street.	150 Wellshot Road, Shettleston.
	2 Summertown Road, Govan (Ultra-Violet Ray).	33 Harriet Street
	150 Wellshot Road, Shettleston.	
	15 Glenbarr Street, Provan.	

	9 a.m.	1.30 p.m.
THURSDAY,	614 Dobbie's Loan. 106 Orr Street (Ante-natal). 15 Glenbarr Street (Ante-natal). 26 Florence Street (1-5 years). 132 Weir Street. 33 Richard Street (—1 year). 2 Summertown Road, Govan (Ante-natal). 194 Fernbank Street, Springburn. 112 Ingram Street. 1 Burgh Hall Street, Partick (Ante-natal).	1 Burgh Hall Street, Partick (1-5 years 60 Avenuepark Street (Ante-natal). 614 Dobbie's Loan. 106 Orr Street. 150 Wellshot Road, Shettleston (Ant natal). 26 Florence Street (—1 year). 132 Weir Street. 2 Summertown Road, Govan (Ant natal). 26 Florence Street (Ante-natal). 15 Glenbarr Street (Ultra-Violet Ray)
FRIDAY,	18 Plean Street, Blawarthill (—1 year). 194 Fernbank Street, Springburn (Ante-natal). 614 Dobbie's Loan (Ante-natal). 60 Avenuepark Street. 106 Orr Street (Ante-natal). 150 Wellshot Road, Shettleston. 26 Florence Street (1-5 years). 2 Summertown Road, Govan. 15 Glenbarr Street, Provan. 33 Richard Street.	614 Dobbie's Loan. 106 Orr Street. 2 Summertown Road, Govan (Ultr Violet Ray). 20 Arklet Road, Elder Park. 15 Glenbarr Street, Provan. 33 Harriet Street (Ante-natal).

Elderpark Infant Consultations—Monday, Wednesday and Thursday at 1.30 p.m.

Maternity Hospital Ante-Natal Clinics—Daily, Monday to Friday, at 1.30 p.m., Saturday, 9.30 a.m. —1 Year Clinics, Monday, Wednesday and Friday, 9 a.m.

Vaccination is also done at 20 Cochrane Street on Tuesdays at 12 noon.

The number of consultations held during 1940 was 3,141, compared with 3,035 for the preceding year, and the total number of attendances at these consultations was 166,390, compared with 212,791 during 1939. The number of infants under one year attending for the first time was 9,579, compared with 10,782 for the preceding year, while the corresponding figures for subsequent attendances were 88,632 and 106,550. The number of children over one year attending for the first time was 1,987, compared with 2,928, and the subsequent attendances numbered 66,192, against 92,531.

The following table gives the attendance at each consultation centre during 1940, with the corresponding total figures for the previous year:—

ATTENDANCES AT INFANT CONSULTATIONS, 1940.

	No. of Consultations held.	Children—1 year. No. of Attendances.		Children+1 year. No. of Attendances.		Total No. of Attendances.		1939—Total No. of Attendances.	
		Prim.	Sub.	Prim.	Sub.	Prim.	Sub.	Prim.	Sub.
orbals ...	408	1,625	14,225	270	10,851	1,895	25,076	2,138	32,643
owcaddens ...	258	711	5,462	171	5,934	882	11,396	1,180	15,667
lder Park ...	203	552	5,444	196	4,425	748	9,869	1,008	12,514
rovan ...	257	702	6,958	172	4,956	874	11,914	999	15,764
ovan ...	206	491	4,238	130	4,334	621	8,572	945	12,365
rr Street ...	360	1,349	11,178	252	8,782	1,601	19,960	1,877	27,458
aryhill ...	154	601	5,752	108	3,688	709	9,440	927	11,744
artick ...	155	431	4,381	63	1,882	494	6,263	546	7,533
ichard Street	219	501	5,150	75	3,610	576	8,760	579	11,549
nettleston ...	309	959	10,816	190	8,136	1,149	18,952	1,130	19,636
eir Street ...	206	448	4,262	105	3,277	553	7,539	673	10,184
gram Street	91	172	1,739	35	1,773	207	3,512	409	6,091
oringburn ...	207	589	5,332	105	3,111	694	8,443	825	10,010
lawarthill ...	103	427	3,610	104	1,364	531	4,974	474	5,923
llokshaws ...	5	21	85	11	69	32	154	—	—
	3,141	9,579	88,632	1,987	66,192	11,566	154,824	13,710	199,081
		98,211		68,179		166,390		212,791	

Supply of Milk to Mothers and Children.—The arrangements for supplying milk to mothers and children up to five years of age under the scheme prepared by the Scottish Milk Marketing Board, which came into operation on 15th July, 1939, were superseded by the National Milk Scheme towards the end of July, 1940. The National Milk Scheme, which was introduced by the Government as a measure of war-time food policy, provides one pint of milk per day, at a reduced rate or free, for every expectant or nursing mother and every child under five years of age. Under the National Scheme milk is granted free if the income of the family is within certain limits, and at 2d. per pint if the income is above the fixed limits. Applications are dealt with by the Local Milk Officer, and the only work now falling on the department is that of handing out application forms through the Child Welfare Centres.

Under the National Scheme dried milk can also be obtained on production of a medical certificate, but only ordinary quality is distributed. Accordingly the department is continuing to accept applications for supplies of vitaminised dried milk under the conditions laid down by the Corporation and in operation prior to July, 1940.

The following table summarises the applications and grants in respect of liquid milk made under the superseded scheme till July, 1940, and in respect of vitaminised dried milk for the whole year:—

	Liquid Milk Jan. to July.	Dried Milk Whole Year.
Applications granted free	36,667	1,642
Applications granted at reduced rates	7,281	286
Applications refused (income over scale)	1,773	148
	45,721	2,076
Applications granted—		
Nursing and expectant mothers	4,020	31
Children under 1 year	9,533	1,700
Children aged 1-5 years...	30,395	197
	43,948	1,928

The number of persons supplied, the total quantity supplied, and the cost involved are shown below:—

	Liquid Milk. Jan. to July.	Dried Milk. Whole Year.
Total quantity supplied—		
Mothers	183,133 pints.	—
Children	1,853,424	—
	2,036,557 pints.	11,222 packets.
Cost—		
Paid by Corporation	£15,370	£694
Paid by Milk Marketing Board	8,429	—
Paid by applicants	1,893	47
Total	£25,692	£741

	Liquid Milk. Jan. to July.	Dried Milk. Whole Year.
Maximum daily number of persons supplied	9,640	331
Minimum daily number of persons supplied	7,658	67
Average daily number of persons supplied	9,097	235

In addition to the above, 57,274 packets of dried milk were supplied at cost price to mothers and children where family income was above the scale of necessity.

Dietary supplements as shown below were also issued from the Centres :—

	Lbs.	Cost.
Cod Liver Oil	9,390	£1,095
Cod Liver Oil Emulsion	14,292	903
Chemical Food	2,612	305
Sundry Foods	46	3
	26,340	£2,306

The booklet " Health of Mother and Child," in its enlarged form, continued in demand at the Centres and 8,950 copies were sold during the year. Large numbers were supplied to other Local Authorities in England and Scotland by special arrangement.

Ante-Natal Consultations.—Sessions at ante-natal clinics numbered 1,498, compared with 1,405 for the preceding year. The total attendances were 50,267, compared with 52,300 in 1939 ; primary attendances were 9,100, or 12 less than in the previous year, but subsequent attendances numbered 41,167, a decrease of 2,021. Consultations and attendances at each of the Centres are shown in the following table :—

ATTENDANCES AT ANTE-NATAL CLINICS, 1940.

	No. of Clinical Sessions.	Number of Attendances.		
		Primary.	S'sequent.	Total.
Partick	103	447	2,273	2,720
Cowcaddens	155	578	2,181	2,759
Maryhill	104	565	2,485	3,050
Springburn	104	546	2,378	2,924
Bridgeton	156	1,101	5,425	6,526
Shettleston	103	819	3,905	4,724
Gorbals	251	1,754	7,981	9,735
Govan	155	1 111	4,933	6,044
Elderpark	102	611	3,086	3,697
Anderston	103	565	2,127	2,692
Blawarthill	52	383	1,761	2,144
Provan	103	600	2,508	3,108
Pollokshaws	7	20	124	144
	1,498	9,100	41,167	50,267

In addition to the above, ante-natal consultations were carried on at the Glasgow Royal Maternity Hospital and at three of the municipal hospital out-patient departments, namely Southern General Hospital, Eastern District Hospital, and Western District Hospital. These consultations have developed rapidly, since the outbreak of war, and the number of new cases which attended during 1940 was 1,274, the total attendances being 5,240.

The total number of cases attending the ante-natal dispensary of the Maternity Hospital for the first time was 3,640, compared with 3,788 in 1939; the total attendance was 15,592, against 17,751. Of the 2,508 cases treated to a termination in delivery 720 were treated in their own homes. There were 1,435 admissions to the ante-natal wards. At the infant consultations held at the hospital there were 3,088 attendances, as compared with 4,281 in 1939.

Among the 8,059 patients whose pregnancy terminated in 1940 (excluding abortions) 45 deaths occurred, giving a death rate of 5·6 per 1,000 births, compared with 4·5 for the year 1939. Of the 8 deaths from puerperal septic conditions, one was associated with cancer, one with late vomiting of pregnancy and endometritis, one with pyelitis, one with phlegmasia alba dolens, one with lung abscess, two with toxemia, and one with dystocia and rupture of uterus. Other deaths among these patients were as follows:—

Toxemia of Pregnancy	3
Other diseases and accidents of Pregnancy	3
Haemorrhage of Childbirth and the Puerperium ...	4
Puerperal Toxemia	4
Other accidents of Childbirth	4
Pulmonary Tuberculosis	4
Nervous Diseases	1
Circulatory Diseases	5
Respiratory Diseases	6
Digestive Diseases	3

Excluding 19 deaths which had little association with the puerperal state, the maternal death-rate of mothers attending the clinics would be 3·2, compared with 3·3 for the City as a whole.

Dental Treatment of Expectant Mothers.—The scheme approved by the Corporation in 1935 to provide dental treatment for necessitous and partly necessitous mothers in need of treatment was continued. Applications for treatment numbered 907, and of these 696, or 77 per cent., were wholly or partly necessitous. The charges made in partly necessitous cases are determined by a scale of necessity approved by the Corporation. Attendances totalled 4,390, of which 1,211 were first attendances; 7,109 extractions were made, and 1,183 dentures completed. Scaling, filling, dressing and other work necessitated over 1,646 attendances of patients.

Maternity Mortality.—The following statement showing the maternal mortality deaths and rates is from figures supplied by the Registrar-General:—

STATEMENT SHOWING MATERNAL DEATHS AND RATES PER 1,000 BIRTHS IN GLASGOW AND SCOTLAND IN THE YEARS 1936-1940.

	Deaths.					Rate per 1,000 Births.				
	1936	1937	1938	1939	1940	1936	1937	1938	1939	1940
idents of Pregnancy	9	9	6	8	5	0·40	0·40	0·27	0·37	0·24
rperal Haemorrhage	18	15	14	25	24	0·80	0·68	0·64	1·15	1·14
rperal Septicaemia cluding Post-abortive psis	58	46	51	25	33	2·61	2·07	2·32	1·15	1·57
aemia of Pregnancy, lbuminuria Convulsions	25	21	24	11	27	1·12	0·95	1·09	0·51	1·29
er Puerperal Diseases	21	19	30	31	19	0·94	0·86	1·36	1·43	0·91
otals—Glasgow... ...	131	110	125	100	108	5·87	4·96	5·68	4·61	5·15
Scotland ...	494	424	432	390	379	5·55	4·82	4·87	4·49	4·4

During the year 108 deaths occurred from maternal causes, equivalent to a rate of 5·15 per 1,000 births, which compares with a rate of 4·61 for the previous year.

ULTRA-VIOLET RAY CLINICS.

No alteration has taken place in the arrangements for light treatment of children suffering from rickets, malnutrition, etc.

The installation and the results of treatment have been fully dealt with in previous reports, so that only the records of numbers treated are here given in respect of 1940:—

RECORD OF ATTENDANCES AND CONSULTATIONS DURING 1940.

	Number of Clinics held.	Children —1 year. Number of Attendances.		Children +1 year. Number of Attendances.		Mothers. Number of Attendances.		Total Number of Attendances.	
		Prim.	Sub.	Prim.	Sub.	Prim.	Sub.	Prim.	Sub.
Provan	66	20	173	261	2,906	3	14	284	3,093
Govan	149	11	34	210	4,011	3	8	224	4,053
	215	31	207	471	6,917	6	22	508	7,146
		238		7,388		28		7,654	

INFANT VISITATION.

Under the scheme of infant visitation every birth is visited if the notification does not state that a medical practitioner has been in attendance, and the following table shows the record of those visited together with certain information obtained:—

	1938.	1939.	1940.
Inquiry cards returned	18,288	17,497	16,824
Full information obtained	17,969	17,137	16,503
Doctor found in attendance ...	—	2	—
Wrong address	—	—	—
Others	319	358	321
Inquiry cards issued	18,212	17,623	16,695

VISITATION BY NURSES.

Altogether the health visitors made 210,368 home visits during the year, compared with 150,297 during the preceding year. Of these totals the respective numbers for infants under one year of age were 77,780 and 62,907. First visits numbered 16,997. In addition, 69,402 visits were made to houses in respect of toddlers, while 17,017 other toddlers were seen during the course of routine visitation of infants. Other visits were made for special enquiries. etc., as shown in the following table:—

VISITS MADE BY NURSES.

	1939		1940	
Infants under 1 year—Primary visits	17,994		16,997	
Infants under 1 year—Subsequent Visits	44,913		60,783	
		62,907		77,780
Children 1 to 5 years		37,816		69,402
Children seen while visiting infants	12,347		17,017	
Ophthalmia Neonatorum		5,814		5,756
Puerperal Fever		1,341		1,040
Maternal Deaths enquiries		199		213
Infant Deaths		21		50
Ante-natal Visits		4,865		5,747
Venereal Diseases		248		368
Light Treatment		978		191
Pneumonia		17		288
Other Visits		1,011		2,094
Houses Shut		22,733		30,422
		137,950		193,351
Infants or Children brought to Central Clinic for treatment, etc.—				
Child Welfare	601		660	
Venereal Diseases	125		82	
Others	1,861		755	
		2,587		1,497

In addition to home visitation, the nurses attend the Child Welfare and other consultations in their own districts. They thus have an opportunity of reporting to the doctor any illness or condition requiring medical treatment and following up cases afterwards to see that the treatment recommended is carried out.

Domestic Helps.—During 1940 24 individual helps attended 145 cases for a total of 2026½ days. This is an average of 14 days per case. The amount paid in fees was £210 17s. 6d. The helps are remunerated at the rate of 5s. per day, so that the balance falling to be met by the Corporation was £295 15s.

Maternity Bundles.—These bundles or part bundles to the number of 2,213 were supplied, in respect of which part payment received amounted to £91 16s.

Day Nurseries.—The three Day Nurseries were reopened during the year, viz., Cowcaddens, Kingston, and Bridgeton—the last in premises handed over by the Education Committee.

The following figures show the number of attendances for the part of the year during which the Nurseries were open:—

Nursery.	Number of Days open.	Total Attendances during the year	Average.	Maximum number in one day.	Accommodation for.
Bridgeton ... ... Reopened July	111	2,915	26	43	40
*Kingston ... ... Reopened August	109	2,202	20	26	36
Cowcaddens ... ... Reopened May	173	5,186	30	39	42

*Closed 1/9/39.

MIDWIVES (SCOTLAND) ACTS.

During 1940 there was a decrease of 34 in the number of midwives who notified their intention to practise, so that there are now 197 on the register. The number of those entitled to registration by examination is 165, while the number of those registered as having been in practice in 1914 is now 22. Of those who ceased practice, one died. The number who notified their intention to practise for the first time was 38, of whom 23 were appointed by the Corporation as municipal midwives.

During the year there were 1663 occasions on which medical help was called by midwives, which represents 32 per cent. of the total births occurring in the practice of midwives. Details of the nature of emergency are not given this year, but the following indicates the period during which medical assistance was called:—

	1938	1939	1940
In all cases in which a woman during pregnancy, labour, or lying-in appears to be dying or is dead	—	—	—
PREGNANCY.—In cases of a pregnant woman, where there is any abnormality or complication	66	53	30
LABOUR.—In the case of a woman in labour at or near term, when there is any abnormality or complication	1,521	1,449	1,248
LYING-IN.—In the case of a lying-in woman, when there is any abnormality or complication ...	183	188	164
THE CHILD.—In the child, when there is any abnormality or complication...	252	242	213
Cannot be classified	2	6	8
Total	2,024	1,938	1,663

Fees to doctors attending emergency cases amounted to £1,264 14s., and during the year £429 3s. 10d. was recovered, £5 6s. withdrawn from medical practitioners' accounts, and accounts for £7 7s. were deleted.

Under the scheme for the payment of midwives' fees in necessitous cases 140 applications were received by the department during 1940. This is a reduction on the figure for 1939, which was 506. Of this number 86 were granted, and the amount of fees paid to midwives was £112 10s., as compared with £385 5s. in 1939. In only 24 cases was a proportion of the fee paid to the midwife recoverable, the amount collected being £12 9s. Of the cases for which payment of fees was made by the department, 86 were distributed among 86 midwives.

Municipal Midwives.—In July, 1940, 28 full-time Municipal Midwives were appointed to replace the midwives in independent practice, who surrendered their certificates under the Maternity Services (Scotland) Act, 1927. To secure continuous supervision during the neo-natal period all municipal midwives visit the infant till the end of the first four weeks, when the case is then transferred to the Health Visitor of the district. There are many advantages from this continuity of supervision during the first months, particularly with regard to the establishment of breast feeding.

From July-December, 1940, inclusive, the municipal midwives attended 569 confinements, paid 4,379 ante-natal visits and 8,966 post-natal visits.

Nursing Homes Registration (Scotland) Act, 1938.—One application for registration of a nursing home, consequent upon a change of management, was made during the year, and this was granted ; this certificate later was withdrawn. No fresh applications for exemption were received. In one of the homes previously exempted no patients were accommodated at the end of the year, while another home was temporarily evacuated. In both cases re-application for exemption will be made when patients are re-admitted.

The following table shows the position of nursing homes at 31st December, 1940 :—

	Registered.	Exempted.
Maternity Hospitals	—	2
General Infirmaries and Hospitals ...	1	9
Nursing Homes	43	4
	44	15

OPHTHALMIA NEONATORUM.

During the year 617 cases of ophthalmia neonatorum were notified, compared with 713 in 1939. Analysis of these notifications indicates that the greater number of the cases are reported by institution nurses and midwives.

Cases of Ophthalmia Neonatorum according to Nature of Attendance at Birth.

Doctors	33
Institutions	92
Institution Nurses	277
Midwives	215
	617

Routine examination for the causative organisms was made in every case reported showing signs of catarrhal inflammation. The number of cases of gonococcal ophthalmia neonatorum was 19. This is the second lowest figure yet recorded, the number of 16 for 1939 being the lowest ever recorded. Of the total cases, 46 were removed to hospital ; 34 attended hospital for outdoor treatment and made 153 attendances. The others were treated at home or at the child welfare centres by the nurses, who made 5,756 visits in this respect.

The total number of admissions to hospital was 55, including 9 cases occurring outwith Glasgow. Of these 9 cases 3 were gonococcal in origin. The Wassermann test for syphilis was performed in 55 cases, and in no case was the test positive, and in none of the children was there any evidence of syphilitic infection.

The treatment of the gonococcal cases with M & B 693 is now the established method of treatment. It was begun in 1938, and has been continued as a routine ever since. The results of this treatment are highly satisfactory. In all but two cases there was complete recovery with no corneal defect. In one of the cases there was a resultant defect in vision ; this case came from an area outwith Glasgow and ulceration of both cornea had developed before admission to hospital. In the second case, though there was slight residual corneal scarring, the vision was not impaired.

Puerperal Fever and Puerperal Pyrexia.—There were registered during the year 419 cases of puerperal fever, compared with 435 for the preceding year. This is the lowest number since the definition of the disease was more exactly laid down, and puerperal pyrexia was added to the list of notifiable diseases. The number of deaths was also reduced, 25 as compared with 30 in 1939. The number of cases of puerperal fever per 1,000 births was 19·4, as against 20·0 for the preceding year, and deaths from the disease were equivalent to a mortality of 1·8 only, compared with 1·4 per thousand births in 1939.

SECTION III.

INFECTIOUS AND OTHER DISEASES.

The total number of cases of infectious diseases registered was 33,610, excluding a further 1,676 cases that were ultimately diagnosed as non-infectious. For the previous year the corresponding figures were 30,665 and 1,610. The higher numbers for the year 1940 were due to a greater prevalence of diphtheria, pneumonia, and measles.

The number of cases of each disease notified during the year is given in Appendix Table X, with the corresponding figures for the preceding year and the respective case rates. The seasonal occurrence of cases of each disease will be found in Table IX in the Appendix, which gives the numbers registered during each month of the year. For purposes of comparison the rates per million of the population for each of the principal diseases are given in the following table, which shows the variations in prevalence which have occurred over the past quarter of a century.

GLASGOW.—CASE RATE PER MILLION OF THE POPULATION FOR ALL CASES OF INFECTIOUS DISEASES REGISTERED SINCE 1914.

YEAR.	Typhus Fever.	Enteric Fever.	Continued and Undefined.	Puerperal.	Smallpox.	Scarlet Fever.	Diphtheria and Membranous Croup.	Cerebro-spinal Fever.	Phthisis.	Non-Pulmonary Tuberculosis.	All Other Diseases.	TOTAL.
1914 ...	18	340	7	206	—	5,337	1,440	45	2,284	1,088*	21,675	32,440
1915 ...	9	248	5	175	—	5,973	1,257	167	2,169	1,375	25,389	36,667
1916 ...	17	158	8	178	—	3,719	1,220	131	2,285	1,270	17,001	25,987
1917 ...	1	82	4	148	—	1,634	1,146	75	2,435	1,433	27,005	33,963
1918 ...	49	128	12	151	1	1,193	1,379	67	2,258	1,273	16,045	22,556
1919 ...	30	103	8	163	5	2,443	1,626	72	1,834	1,083	21,359	28,726
1920 ...	8	204	13	267	477	3,378	1,809	76	2,009	1,063	25,509	34,813
1921 ...	6	100	7	299	19	3,272	1,727	56	1,902	1,061	23,965	32,414
1922 ...	18	79	6	274	—	3,234	1,572	62	1,818	977	31,633	39,674
1923 ...	2	117	20	259	—	3,321	1,645	59	1,606	1,149	25,805	33,984
1924 ...	—	76	18	222	2	2,965	1,768	61	1,703	1,137	30,881	38,835
1925 ...	—	41	8	279	—	3,551	1,617	58	1,490	1,039	22,309	30,430
1926 ...	†7	92	4	283	—	4,350	2,130	60	1,646	945	31,865	41,385
1927 ...	—	136	4	254	—	3,777	2,785	72	1,489	1,010	32,021	41,550
1928 ...	—	53	4	379	—	2,971	2,414	94	1,582	1,016	29,368	37,880
1929 ...	—	78	4	474	20	3,079	1,944	186	1,656	911	28,838	37,192
1930 ...	2	129	4	549	3	4,555	2,407	136	1,549	962	32,002	42,298
1931 ...	1	102	3	609	—	6,449	1,937	167	1,564	897	36,642	48,671
1932 ...	—	69	1	649	—	8,361	1,966	138	1,572	874	25,745	39,375
1933 ...	—	122	2	492	—	7,593	2,148	140	1,465	720	21,572	34,254
1934 ...	—	39	2	555	—	5,336	2,374	85	1,475	609	40,750	51,225
1935 ...	—	164	4	526	—	3,605	2,207	74	1,569	602	20,817	29,568
1936 ...	—	195	2	447	—	3,845	1,749	66	1,471	635	36,838	36,838
1937 ...	—	63	4	478	—	5,001	2,081	94	1,477	573	23,567	33,338
1938 ...	—	51	3	468	—	3,588	2,515	78	1,550	621	30,744	39,618
1939 ...	—	52	5	385	—	2,625	2,786	72	1,395	497	19,125	26,642
1940 ...	—	319	—	381	—	1,706	4,724	416	1,737	609	20,700	30,592

* Non-pulmonary tuberculosis made compulsorily notifiable, July, 1914.
† Rates are for extended city.

Smallpox and Vaccination.—There was no case of smallpox during the year, and few contacts were notified as arriving at ports in the country. The percentage of children born who were successfully vaccinated was 42·8 compared with 44·1 for the previous year. During 1940 the number of cases reported by registrars as not having lodged certificates for conscientious objection to vaccination under the Act was 5,904, as against 4,892 for the preceding year. As a result of action taken children vaccinated numbered 1,831, while the number postponed was 2,349, and 98 were certified as not susceptible. Medical certificates on behalf of 211 children were forwarded to the Department of Health for Scotland as not fit subjects for vaccination. The number of children vaccinated at Child Welfare Centres was 2,209, compared with 2,136 during the previous year.

Enteric Fever.—The numbers of verified cases were 11 typhoid and 339 paratyphoid. The typhoid figure was the same as the preceding year's, which was the lowest on record. The paratyphoid figure, however, is the highest annual paratyphoid total yet registered, the previous maximum being 195 in 1936. Only 1 typhoid and 9 paratyphoid cases were institutional in origin. Deaths numbered only 6, which is equivalent to a death rate of ·005 per thousand of the population.

A large outbreak of paratyphoid began on 22nd February and lasted for seven weeks. In the first week there were only 7 cases, but in the following week 138 cases occurred, and the total finally reached 274, of whom all but four were treated in hospital. Only 12 secondary cases occurred, although the total also includes 21 others classed as contact carriers. Cases were from the outset widespread throughout the city, though the south side was relatively less affected, and practically all were derived from the industrial and less well-to-do sections of the community. Unusual features of the primary cases were that males exceeded females and that nearly three-quarters were under twenty years of age. Multiple primary cases were found in several households : in one family of ten persons eight such cases occurred, while another member was a contact carrier. Despite detailed investigation the origin of the epidemic was not traced, nor could it be shown to be connected with concurrent groups of cases in the neighbouring counties. A full report appeared in the *Lancet*, 15th October, 1940.

Scarlet Fever.—During the year 1,874 cases of scarlet fever were registered, compared with 2,962 in 1939—a very considerable fall. The respective case rates per million of the population were 1,706 and 2,625. The rate for 1940 is the lowest recorded in the city since 1918 ; this

low incidence is part of a declining wave that followed a long period of high prevalence culminating during 1930-34 when scarlet fever reached the highest level it had attained during the last quarter of a century. Some part of the decrease also may be due to the evacuation of a considerable number of school children, especially during the autumn months when the seasonal incidence of the disease is greatest.

Of the total cases registered, 442 were treated at home, which is equivalent to 22 per cent., compared with 20 per cent. for the previous year. During the last war the percentage treated at home varied between 3 and 8 per cent. Deaths numbered 10, in comparison with 11 in 1939, and the death rate remained the same at 10 per million of the population, a rate which is the lowest on record.

Diphtheria.—Cases of diphtheria and membranous croup notified during 1940 numbered 5,910, compared with 3,144 for the previous year. The rate per million of the population was 4,724, against 2,786 in 1939, and is the highest ever recorded. Although the disease was more or less prevalent throughout the whole of the year, there was a rapid rise in incidence between August and October, as shown in Table IX in the Appendix. In each of the last three months of the year 600 or more cases were registered. The whole of the winter of 1940-41 was marked by an exceptionally high prevalence.

The disease was more or less prevalent throughout all wards in the city, without any definite local outbreaks. In wards with a large population of young children the numbers recorded were correspondingly large, as for instance in Provan Ward with 285 cases, Woodside with 257 cases, Shettleston and Tollcross with 239 cases, and Parkhead with 235 cases.

The following table shows the age and sex distribution of the patients, together with the case mortality per cent. at respective ages :—

	Cases.			Case Mortality per cent.		
	Males.	Females.	Total.	Males.	Females.	Both Sexes.
−1 year	29	11	40	10·3	27·2	15·0
−2 years	94	71	165	7·4	16·9	11·5
−5 years	651	640	1,291	6·7	10·5	8·5
−10 years	871	1,003	1,874	3·4	4·1	3·8
−15 years	369	408	777	0·8	1·7	1·2
15+years	354	689	1,043	1·1	5·8	0·8
All ages	2,368	2,822	5,190	3·8	4·7	4·3

This table shows the number of cases of diphtheria that occurred at different ages. As there would appear to be in some other large towns a swing towards a higher prevalence at older ages, the following table is introduced showing the percentage of cases of diphtheria occurring in various age groups at different years from 1914 to 1940 :—

		−1	−5	−15	−25	25+
1914	...	3·5	38·7	38·3	12·0	7·5
1917	...	3·0	37·7	39·5	12·3	7·5
1921	...	3·2	27·4	50·1	12·0	7·3
1924	...	3·3	35·6	43·1	10·6	7·4
1940	...	0·8	28·1	51·1	14·3	5·7

As between 1924 and 1940 the percentage of cases sickening at ages between 15 and 25 has somewhat increased.

The number of deaths from diphtheria was 226, which represents a mortality per million of the population of 216, compared with 144 in 1939 and 117 in 1938. This is the highest mortality recorded for over twenty years. Of the 91 male deaths from the disease 84 occurred under 10 years of age, while of the 135 female deaths there were only 11 over that age. Of the total cases registered 5,163 were treated in hospital and only 27 remained at home.

A campaign for the protection of children against diphtheria was commenced during the later part of the year, facilities being made available at 15 child welfare centres and at 45 centres throughout the city for school children, at which some 100 weekly clinic sessions were held. During the winter of 1940-41 approximately 100,000 children were protected, and the following table represents the position as at the conclusion of the special campaign :—

Ages	Total City Children	Number Evacuated July, 1941.	Number Remaining.	Inoculated.	Per cent. Inoculated.
—5	77,508	27,000	50,508	23,236	46
5—15	170,839	50,000	120,839	66,340	55

Erysipelas.—Of 656 cases recorded, 336 were removed to fever hospitals while 7 additional cases were dealt with in other institutions. For the previous year the total was 834. The case rate per million of the population was 597 in 1940, against 739 in 1939. Deaths numbered 12, which is equivalent to a mortality per million of the population of 11, compared with 12 for the preceding year.

Diseases of the Central Nervous System.—In 1940 457 cases of cerebro-spinal fever were registered, compared with 81 for the preceding year; this is the highest incidence since the outbreak of 1907. The cases were widely distributed throughout the city, and there were few instances of multiple infection. Of the total cases, 85 were under one year, and 58 between one and two years; altogether 227 were children under five years of age, or nearly 50 per cent. of the total. As usual, the attack rate was highest in the spring, although the disease was continuously prevalent throughout the year. A considerable proportion of patients removed to hospital as cerebro-spinal fever were ultimately diagnosed as tubercular meningitis, which also had a higher incidence than usual. Deaths from cerebro-spinal fever numbered 93, giving a death rate of 89 per million of the population, against 17 for the preceding year.

Encephalitis Lethargica was reported on three occasions, while there was only one case of acute polio-encephalitis.

Measles.—Measles, which usually recurs in epidemic form in the city more or less every second winter, did not emerge in epidemic form until late in the spring of 1940. Accordingly the whole of the outbreak occurred within the calendar year, the epidemic continuing throughout the summer and autumn. The total number of cases registered was 11,028, compared with 1,462 in 1939. This outbreak may be regarded as of minor degree as compared with the last two outbreaks when over 20,000 cases were recorded in 1936 and nearly 25,000 in 1934. In 1940 there were only 97 deaths, which is equivalent to a mortality of 0·9 per cent., whereas in 1938, when the last epidemic occurred in the winter and spring of the year, the mortality was 1·6 per cent.

The seasonal incidence of the disease is given in Table IX in the Appendix, which shows that of the total cases, 4,435 were registered in June. It has always been the practice to remove to hospital cases which are seriously ill, usually with respiratory complications, or where the case occurs in small overcrowded houses. Thus 1,048 cases were admitted to hospital, while 83 were dealt with in other institutions.

During the year 653 cases of German Measles were also recorded, of which 299 were removed to hospital.

Whooping Cough.—Cases registered numbered 875, against 6,311 in 1939. Most of the cases occurred towards the end of 1940, and were the forerunners of a big outbreak extending into the following year. Twenty children died of whooping cough.

Chickenpox.—The number of cases registered in 1940 was 2,047, against 3,860 for the preceding year. Of the total cases, 131 were treated in fever and general hospitals.

Trachoma.—The number of notifications received during the year was 10, of which 8 were new cases, 7 of these being definitely trachoma and 1 doubtful. The number of definite cases of trachoma on the register at the end of 1940 was 142, while 6 other cases were considered doubtful. The number of cases who attended the trachoma clinic was 133, and during the year the total number of attendances was 2,181, of which 700 were in consultation with the ophthalmic surgeon and 1,481 attendances for treatment by the nurses. There were few operations at the dispensary, it having been found more satisfactory to admit patients requiring operative measures to hospital for treatment. The number of cases admitted to hospital during the year was 8.

Malaria.—Fifty cases of malaria were reported, mostly via the harbour, as compared with 11 last year. Most of the 33 cases registered against the harbour arrived here on ships from African ports.

Dysentery.—This disease was also more prevalent, 364 cases being recorded compared with 163 in 1939. Of the total cases, 118 occurred in institutions ; otherwise the cases were more or less distributed throughout the city, many of them among children under school age. Of the total cases, 123 were removed to hospital, while 108 more were treated in other institutions.

Dysentery.—The number of registered cases was 364—the highest annual total recorded since dysentery became notifiable. The previous maximum was 275 cases in 1937. Fortunately the disease was mild, and only 9 deaths from dysentery were registered. The sources of the infections and their quarterly incidence were as follows:—

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total.
Home Infections ...	28	63	76	76	243
Institutional Infections ...	12	4	77	28	121

Eighty cases were registered during the year from a large general hospital. Among these were 54 Sonne cases (including 2 nurses) and 5 Flexner registered between late August and early October from 25 of the 37 wards. The origin of this outbreak was untraced, and it is difficult to define its size as altogether 227 patients of several kinds were reported to be suffering in varying degree from diarrhoea during this period.

At the end of the year milk-borne Flexner affected this general hospital and also a maternity hospital with a total resident community of 320 persons. Notifications arrived from the latter institution on 6th January, 1941. On the 9th county authorities discovered diarrhoeal illness on the farm supplying unpasteurised Grade A T.T. milk as the whole supply of the maternity hospital and part supply of the general hospital. Of 12 milkers 3 had symptoms and 4 others had cases of diarrhoea in their families, while the head byreman, his wife and son had also been ill. Originally regarded as gastric influenza, farm cases proved to be Flexner dysentery. Confirmed Flexner cases sickened in the institutions on the following dates:—

	Dec., 1940.		January, 1941.										Total.
	28	30	1	3	4	5	6	7	8	9	10	13	
Maternity Hospital Cases	1	—	2	1	1	1	4	1	3	1	1	1	17
General Hospital Cases	—	1	—	—	—	9	12	9	4	4	1	1	41

A secondary group of 4 confirmed cases sickened in the general hospital on alternate days from 20th January. Its cases were drawn from 16 of the 29 wards occupied, and were composed of 20 male patients, 12 female patients, 4 doctors, and 9 nurses. Onset of diarrhoea between 5th and 10th January was also reported regarding 44 other patients, but only one of these was notified as dysentery (Sonne). Only one death was attributed to dysentery, that of an already debilitated female aged 54 from a mental ward.

Diarrhoea and Enteritis.—Mortality from these digestive disorders was somewhat lower, 307 deaths in children under two years of age being recorded, against 324 in 1939. Of the total deaths 275 occurred in the first year of life.

Anthrax.—No case was recorded during the year.

Infective Jaundice.—A man of 37 years was admitted to one of the city infirmaries on 8th November with a history of jaundice of seven days' duration. The diagnosis of Weil's Disease was confirmed by 1/1000 agglutination of leptospira ictero-haemorrhagiae. For the past twelve years the patient had been employed as a pig slaughterer in the slaughter-house; he took his meals at his work, and often laid down his "piece" on a box in the middle of the piggery where rats are prevalent.

RESPIRATORY DISEASES.

Influenza and Pneumonia.—Respiratory diseases, which had been considerably less prevalent during 1938 and 1939 than in previous years, had a higher incidence during 1940 beeause of an outbreak of influenzal pneumonia in the first two months of the year. Pneumonia is pre-eminently a disease of the winter and spring months, its ineidence bearing a definite relation to weather conditions. In the early weeks of 1940 there oecurred the coldest spell since meteorological records began, when also the incidence of influenza and influenzal pneumonia was extremely heavy. Indeed, few people escaped respiratory disease of some degree. In many factories and workshops and departments up to 20 and 25 per cent. were off duty at one time ; school children were also much affected. The cold spell lasted for about six or seven weeks, during which the mortality from influenza and pneumonia reached levels which have not been touched for eleven years except for a brief period in the second and third weeks of 1937.

The death rate from all causes rose to over 41 per thousand of the population in the fourth week of the year—the highest weekly death rate since 1929, when a death rate of over 50 was reached in the fourth week. The mortality among children under one and those over sixty years of age was exceptionally heavy during the outbreak.

The total number of cases of acute primary pneumonia registered was 5,516, against 3,520 in the preceding year, while 308 cases of pneumonia of the influenzal type were reeorded, as against 228 in the previous year. Of the total cases of pneumonia registered, 2,664 were removed to fever hospitals, while 560 were removed to other institutions.

TUBERCULOSIS.

During the year there was an increase in the number of cases of both pulmonary and non-pulmonary tubereulosis notified to the Department. In the case of pulmonary tubereulosis the number of notified eases was 1,905, an increase of 331 as compared with the figure for 1939. The number of non-pulmonary cases notified rose from 561 during 1939 to 669 during 1940.

In the case of pulmonary tuberculosis the increase oeeurred ehiefly in age groups 15-45 years among males and 15-35 years among females. A careful analysis of the occupation of all notified pulmonary cases

arising during 1939 and 1940 was made and the following information was obtained. There has been little increase in the number of military cases or in the number of cases among the professional class, domestic class, and scholars, the real increase being among labourers, tradesmen, and skilled and unskilled factory workers.

The following comparative table shows the trend of notifications of non-pulmonary tuberculosis compared with previous years, and for various types of the disease :—

	Involvement of Bones and Joints.	Involvement of Meninges.	Other Non-Pulmonary Lesions.	Total.
1920 ...	361	172	652	1,185
1925 ...	289	140	686	1,115
1930 ...	254	214	579	1,047
1935 ...	181	140	353	674
1938 ...	236	157	307	700
1939 ...	185	140	236	561
1940 ...	198	193	253	644

In the case of deaths from meningeal tuberculosis the numbers rose from 154 during 1939 to 193 during 1940. Increases were noted chiefly in the age groups -5 years for both males and females and in the age group 10-25 years for the female sex only. Deaths from abdominal tuberculosis during this year were only 20, as compared with 131 in 1939, but deaths from other forms of tuberculosis were 117 as against 70 during the previous year.

Some beds in emergency hospitals were released for the treatment of this disease in January, 1940 ; others later in the year. This in a large measure assisted in keeping down the growing waiting list. There were 1,374 cases of pulmonary tuberculosis undergoing tcartment in various institutions at December, 1939, compared with 1,588 cases at December, 1940.

The number of domiciliary visits made by tuberculosis health visitors was 53,124, of which 37,752 were to cases of pulmonary and the remainder to cases of non-pulmonary tuberculosis. The total number of medical consultations at the six dispensaries was 1,036, and here 1,828 males and 1,527 females attended for the first time, while their subsequent visits to dispensary numbered 37,686. Of the 1,905 new cases of pulmonary tuberculosis, 1,120 were treated in hospitals and 785 at their own homes. In addition, 109 cases notified in previous years were also admitted to hospital. Of the new cases of non-pulmonary tuberculosis 284 cases were admitted to hospital, and 385 treated at home. Thirty-five cases notified in previous years were admitted to hospital.

To review the position briefly: at December, 1939, there were 5,735 recognised cases of phthisis in the city, while the corresponding figure for December, 1940, was 5,600. Of this 5,600 some 2,733 cases had tubercle bacilli in their sputum. The corresponding figures for the number of cases of non-pulmonary tuberculosis in the city at December, 1939, and December, 1940, were 2,509 and 2,295 respectively. The annual number of new cases, which before the outbreak of hostilities was tending to stabilise at an approximate figure of 1,500 pulmonary and 500 non-pulmonary cases, has been augmented during 1940. The reasons for this increase and its continuance has been the subject of investigation by the medical staff of this Department.

BAIRD STREET ACTINOTHERAPY CLINIC.

The number of patients attending this clinic at the end of 1940 was 128, as compared with 97 at the end of 1939. The following table summarises the results of treatment in 110 patients who were dismissed during 1939 from the general clinic, and excludes details of 19 patients who had less than one month's treatment :—

	Number of Patients.				Average Duration of Treatment in Months.		
	Healed.	Improved.	Not Improved.	Total.	Healed.	Improved.	Not Improved.
Superficial Adenitis	41	24	9	74	5·7	4·3	2·3
Lupus Vulgaris ...	6	15	—	21	8·8	20·7	—
Abdominal Tuberculosis ...	1	1	—	2	3·0	2·0	—
Bone and Joint Tuberculosis ...	—	1	1	2	—	5·0	3·0
Other Tubercular Conditions ...	3	2	—	5	3·0	3·5	—
Miscellaneous—							
(*a*) Hilum Adenitis	—	2	—	2	—	3·0	—
(*b*) Bronchitis ...	—	—	—	—	—	—	—
(*c*) Others ...	3	—	1	4	2·7	—	3·0
	54	45	11	110			

As regards the special lupus clinic, 86 patients attended during 1940 on 2,400 occasions, and were given 4,190 hours of treatment ; of these 35 were still receiving treatment at the end of the year, 24 were regarded as probably healed, 3 were evacuated to a reception area, 5 were admitted to hospital, and 19 defaulted. Of the 6 cases of lupus listed as healed in the table, 5 received a full course of treatment from a Finsen-Lomholt lamp, and of the 15 cases regarded as improved, 13 received an incomplete course of treatment from a Finsen-Lomholt lamp.

GORBALS X-RAY CLINIC.

This new clinic opened on 1st April, 1940, since when it has served as the X-ray centre for patients from the South-Eastern Division of Glasgow. It marks an advance in administration in that the distance travelled by patients requiring X-ray from outlying parts of the city has been markedly reduced, with a consequent saving in time and expense, as they do not now require to go to Ruchill Hospital for this service.

The staff consists of three persons—the radiologist, the radiographer, and a Sister—with the additional assistance of the Tuberculosis Officer. The clinic is open twice a week—on Monday afternoon and on Wednesday forenoon. The principal session is on Monday afternoon, when all patients to be X-rayed are asked to report. Hours for attendance are as undernoted:—

Cases from Tuberculosis Clinic—	
Males 7 years and over	2-0 p.m.
Females and Children under 7 years	3-0 p.m.
Cases from Ante-natal and Child Welfare Clinics	3.30 p.m.

Patients from the Education Health Service and Outdoor Medical Service Clinics are seen by the Tuberculosis Officer before X-ray examination. The session on Wednesday forenoon is attended only by the radiographer or sister for completion and annotation of films taken at the Monday session preceding. No patients normally attend at this time, but any urgent or emergency cases can be X-rayed if desired. Cases for special radiography, *e.g.* by tomograph, are relatively few and are referred to Ruchill Hospital where facilities are available. Lipiodol examinations, however, may be carried out at Florence Street. Artificial pneumothorax cases from the South-Eastern Division still attend Baird Street Clinic, where treatment is conveniently centralised. Radiograms of these cases, however, are taken at Florence Street.

The X-ray department is situated one stair up at the south end of Florence Street Clinic. The main unit is the X-ray room, from the north wall of which a short passage forming a light baffle leads to the dark room. The equipment in the X-ray room is all of a modern British design. Power is supplied from a transformer cabinet on the east wall to three X-ray tubes, two of which are of the rotating anode type. One tube serves the screening stand for radiograms in the upright position, while the remaining two are placed respectively above and below the

X-ray couch for radiograms in the horizontal positions. A notable feature is the upright revolving stand by which a patient can be viewed from any angle, the desired degree being accurately controlled by a foot lever. For gauging pelvic disproportion in ante-natal cases a pelvimetry chair is supplied.

During the period X-ray examinations were carried out on a total of 689 cases—603 from the Tuberculosis Clinic and 86 from Ante-Natal and Child Welfare Clinics—an average of 18 for each of the 38 sessions. Of the 603 cases from the Tuberculosis Clinic, 405 were seen and X-rayed for the first time, the remaining 198 being known cases sent for further radiography. The 405 new cases were of all ages, and included the following three interesting conditions: (1) a collapsed accessory lobe at the apex of the right lung; (2) congenital absence of left forearm and hand with a rudimentary humerus; (3) right unilateral pulmonary tuberculosis and congenital heart disease.

Of the new cases, 49 were X-rayed under the National Service (Armed Forces) Acts, and 20 as contacts of cases of tuberculosis, and in every case a radiogram of the chest was taken.

An analysis of the radiograms of the 405 new cases showed that no lesion was detected in 32 per cent., pulmonary tuberculosis in an early stage in 13 per cent., pulmonary tuberculosis in an advanced stage in 22 per cent., pleurisy in 5 per cent., post-pneumonic or cardio-vascular conditions in 14 per cent., a root gland enlargement in 14 per cent.

It is evident that this clinic is meeting a long-felt want, and that it has performed excellent work during its first year.

X-RAY WORK.

The following table shows the amount of work done at the various institutions:—

Institution	Number of Patients Skiagraphed.		Number Skiagraphs taken.	Number of Screen Examinations only.	Total Patients.
	Indoor	Outdoor			
Ruchill ...	2,021	5,463	8,349	3,077	10,496
Robroyston ...	895	29	2,259	—	924
Mearnskirk ...	1,577	164	4,088	83	1,741
Baird Street	—	—	—	4,252	338
Bellefield ...	259	—	—	814	198

VENEREAL DISEASES.

The work of the venereal diseases scheme has considerably increased during 1940, the major part of the rise in new cases being due to greater activity at the port. This is illustrated by the figures for the Broomielaw Clinic, where there is a 40 per cent. increase in attendances of seamen. A factor which has influenced the rise in the number of seamen patients is the practice of giving foreign seamen a month's leave while waiting for another ship. These seamen take up lodgings in Glasgow, and those suffering from venereal disease come to the clinics for treatment, and in not a few cases others contract the disease during their stay in Glasgow.

The incidence of acute syphilis in males has risen by 32 per cent. as compared with 1939, and there has been an appreciable increase in the incidence of gonorrhoea. There has been a reduction in the number of cases of congenital syphilis, especially under one year, the figure of 23 being the lowest yet registered. The number of patients receiving indoor treatment has increased, especially at Belvidere and Baird Street Auxiliary Hospitals, which contrasts markedly with the decrease in admissions to the Glasgow Lock Hospital consequent on the decision of the directors to close the hospital on 30th September, 1940. The treatment of gonorrhoea by sulphapyridine (M. & B. 693) has proved invaluable, and during the year trials have been made with another chemical of the same group called thiazamide (M. & B. 760). This substance has proved as valuable as M. & B. 693 and can be given in larger doses without systematic upset.

Syphilis.—As already stated there has been a considerable increase in the incidence of acute syphilis both in males and females. On the other hand, as will be seen from Table A, an appreciable decrease is to be noted in the incidence of late and congenital syphilis. The figures for congenital syphilis are especially noteworthy when compared with those for 1930, when there were 84 cases of congenital syphilis under one year compared with 23 in 1940, while there were 250 cases of congenital syphilis of all ages in 1930 compared with 96 in 1940.

Gonorrhoea.—The incidence of acute gonorrhoea has increased both in males and females, the figure for 1940 being 1,641 compared with 1,501 for 1939. Chronic gonorrhoea has not shown the continued decrease apparent in recent years.

In-Patient Treatment.—The number of patients admitted for in-patient treatment increased from 363 in 1939 to 400 in 1940, while the average days' residence fell from 46·4 days to 31·8 days. Belvidere Hospital admitted 206 cases during the year, compared with 118 for 1939, a large proportion being seamen with only a temporary residence in the city.

Attendance of Patients.—Out-patients attending the various treatment centres for the first time numbered 4,876, and there were 87,860 attendances of new and old cases; 145 new cases were admitted for in-patient treatment. The Corporation *ad hoc* centres dealt with 92·3 per cent. of all acute venereal disease, which compares with 92·2 per cent. for 1939 and 91·6 per cent. for 1938. The following tables summarise the attendances at the various centres:—

	Ad Hoc Treatment Centres		Glasgow: All Centres.
	Males.	Females.	
Acute Syphilis (includes Primary, Secondary, and Latent in the First Year of Infection) ...	417	65	609
Acute Gonorrhoea	1,446	149	1,641
Total Acute Venereal Disease	1,863	214	2,250
Late and Congenital Syphilis	75	47	408
Chronic Gonorrhoea	73	36	303
Total Chronic Venereal Disease	148	83	711
Other Diseases, including Soft Sore, Septic Balanitis, etc.	825	71	1,103
Non-Venereal	692	119	957

In-Patient Treatment.—The following table shows admissions of patients to the hospitals of the Local Authority and elsewhere for the treatment of venereal diseases:—

SHOWING TOTAL NUMBER OF PATIENTS ADMITTED FOR IN-PATIENT TREATMENT.

	Sex.	Primary Syphilis D.G.+W.R.−	Primary Syphilis W.R.+	Secondary Syphilis.	Latent Syphilis. (1st year).	All Later Stages.	Congenital Syphilis.	Extra-genital Infection.	Acute Gonorrhoea.	Chronic Gonorrhoea.	Soft Chancre.	Non-Specific Venereal Disease.	Non-Venereal.	Total Admissions.	Aggregate Days' Residence.
elvidere Hospital...	M.	15	28	31	1	12	—	1	73	7	19	11	8	206	5,815
aird Street ...	M.	—	—	—	—	—	3	—	3	—	—	—	1	7	576
	F.	—	1	6	—	1	—	—	44	3	—	1	14	70	2,573
ock Hospital ...	M.	—	—	—	—	—	2	—	—	—	—	—	2	4	627
	F.	—	8	11	—	2	6	—	2	51	—	—	5	85	2,095
ther Hospitals ...	M.	—	—	—	—	10	8	—	—	—	—	—	—	18	590
	F.	—	—	—	—	8	2	—	—	—	—	—	—	10	462
Totals ...		15	37	48	1	33	21	1	122	61	19	12	30	400	12,738

The following table shows the amount of arsenical treatment given to cases of early syphilis that have been dismissed as cured or who have defaulted during the year:—

Less than One Course of "914"	96
One Course	111
Two Courses	69
Three Courses	16
Four or More Courses	14
Total	306

Incidence of Jaundice during Treatment.—Observations were continued during the year on the incidence of jaundice in new cases under treatment at Black Street Centre. There was a slight rise in the incidence of jaundice among new cases of early and late syphilis. Of the 216 early cases 3·2 per cent. suffered from jaundice, while out of the 46 late cases 2·2 per cent. developed this complication.

Issue of Salvarsan Substitutes to Medical Practitioners.—Twenty-four medical practitioners received free supplies of salvarsan substitutes for the treatment of private patients. The total number of doses issued was 1,033, compared with 914 in 1939.

Report of the Nurse Almoner.—During the latter part of 1940 the Nurse Almoner returned from duty with the Army Nursing Service and domiciliary visitation was resumed. During the remaining part of the year 180 patients were visited, of whom 108 resumed treatment and 26 were not found at the addresses given.

SECTION IV.

PORT HEALTH AUTHORITY.

During the year there were 1,533 arrivals from foreign ports and 366 from the Irish Free State, a total of 1,899 ships. Of the vessels from foreign ports 386 came from or called at infected ports, 199 direct, and 187 via a home port, the remaining 1,147 being from non-infected ports. The tonnage of the 1,533 ships from foreign ports was 4,847,963 as compared with 4,710,892 tons for the 1,496 ships arriving during the previous year. The number of vessels and their crews arriving from foreign ports is given in the following table :—

Nationality.	Number of Vessels.		Number of Crew	
	1940.	1939.	1940.	1939
British	1,058	1,111	66,658	72,032
Norwegian	150	108	3,687	3,251
American	—	82	—	3,708
Danish	41	31	833	667
Dutch	35	30	839	594
Finnish	19	24	395	521
Swedish	54	23	1,295	495
German	—	22	—	492
French	39	14	1,951	371
Greek	50	12	1,601	334
Esthonian (18), Faroese (2), Latvian (2), Yugo-Slav (4), Spanish (1), Italian (1), Argentinian (1), Polish (21), Japanese (1), Hungarian (1), Belgian (25), Panamanian (7), and Egyptian (5)	89	39	3,688	1,113
Total	1,533	1,496	80,945	83,650

The above table does not include vessels arriving from the Irish Free State ports, which are also boarded by officers of the Port Health

Authority at Greenock and Glasgow. These vessels are dealt with in the same manner as ships from overseas ports with regard to health and cargoes.

The number of ships arriving from foreign and Irish Free State ports during the year 1940 is given in the following summary, together with the corresponding numbers for the previous year.

	1940.			1939.		
	Ships.	Crews.	Passengers.	Ships.	Crews.	Passengers.
From Infected Ports—						
Class A (Direct) ...	199	12,508	934	204	15,731	4,538
Class B (Coastwise) ...	187	12,577	11	343	27,621	3,838
From Non-Infected Ports—						
(Direct and Coastwise)	11,47	55,860	20,271	949	45,298	7,469
Total from Foreign Ports ...	1,533	80,945	21,216	1,496	83,650	15,845
Eire	366			510		

It will be observed that the number of ships arriving from infected ports has decreased, 199 against 204 in the previous year. There was also a decrease from 343 to 189 in ships arriving coastwise. With regard to the nationality of ships, British numbered 1,058 in 1940 as against 1,111 in the preceding year.

Infectious Diseases.—The total number of cases of infectious diseases and other illnesses which were found on board vessels arriving at Glasgow was 301, compared with 113 during the preceding year.

With the exception of 35 cases of illness, 50 per cent. of which were cases of food poisoning, the remainder are classified in the following table. There were only three deaths this year—one heart failure, one phthisis, and one pneumonia—compared with 22 deaths last year. The diseases showing the largest increase in number of cases are diphtheria (18 compared with 1 case last year), measles (55 compared with 3), and venereal disease (61 compared with 41). Scabies has reappeared on the table with 11 cases.

	No. of Cases.	Cases sent to Hospital in Glasgow.	Cases sent Home.	Left on Ship.	Deaths.
Chickenpox	4	4	—	—	—
Continued Fever	8	8	—	—	—
Diphtheria	18	18	—	—	—
Erysipelas	2	2	—	—	—
Dysentery	6	6	—	—	—
Enteric Fever	1	1	—	—	—
Infantile Paralysis	1	1	—	—	—
Influenza	17	4	—	13	—
Malaria	44	35	2	7	—
Measles	55	46	2	7	—
Mumps	5	5	—	—	—
Meningitis	3	3	—	—	—
Pneumonia	15	14	—	1	1
Phthisis	8	5	2	1	1
Scarlet Fever	1	1	—	—	—
Scabies	11	8	—	3	—
Tonsillitis	1	—	—	1	—
Trachoma	1	—	—	1	—
Venereal	61	11	4	46	—
Whooping Cough	1	—	1	—	—
Other Illness	35	22	13	—	1
	301	194	24	80	3

Rat Destruction.—During the year 131 Deratisation Certificates and 391 Deratisation Exemption Certificates were issued. Of the ships deratised during the year 35 were done by SO^2, 86 by HCN and 10 by trapping. Of the Exemption Certificates 27 were issued to new vessels sailing on their maiden voyage.

The following table shows the number and classification of the certificates granted:—

	Deratisation.				
	SO_2	HCN.	Trapping.	Exemption.	Total.
From Infected Ports	21	49	5	188	263
From Non-Infected Ports ...	14	37	5	203	259
	35	86	10	391	522

The total number of rats caught on ships was 4,378, while 969 more were caught in sheds, stores and other premises adjacent to the harbour. Of the 4,378 caught on board ships 674 were trapped, 2,273 were found dead after fumigation with HCN, and 133 after SO^2. Of the total 5,347, 587 were submitted to the Bacteriologist for examination for plague infection with negative results.

Nuisances on Shipboard.—Inspections and reinspections of vessels in the harbour numbered 2,368 during the year. The visits to overseas steamers numbered 1,533, and the revisits 476. In addition, 315 coasting steamers and 3 sailing craft were examined, revisits being paid to 41 of the former and 1 of the latter. Verbal warnings to Masters where nuisances of a minor nature were found numbered 393, and 65 intimations and 2 notices were served where defects existed. Verbal instructions *re* locking up of water closet accommodation while vessels were in port were given to the number of 199, and 189 notices were served.

The total nuisances discovered numbered 2,067—in forecastles, rooms, etc., 825; water closets, wash-houses, etc., 395; structural defects, 363; while general complaints were recorded in 484 instances.

Imported Food Regulations. 1937.—The quantity of foodstuffs imported direct during 1940 (not including coastwise or transshipped cargoes) amounted to 921,594 tons 6 cwts. The following summary gives particulars of foodstuffs and the quantities found unfit and which were disposed of to the satisfaction of the officers of the Department.

Article.	Weight. Cwts.	Qrs.	Article.	Weight. Cwts.	Qrs.
Apples	4	2	Oats	12,000	—
Asparagus	10	—	Onions	20	—
Eggs (Frozen)	3	—	Peas	1,020	—
Fruits (Canned) ...	12	—	Pears	1	1
Flour	411	2	Pork and Beans ...	4	—
Gelatine	20	1	Potatoes	2,460	—
Meats (Canned) ...	1	3	Tea	2	1
Milk (Canned)	13	—	Wheat	60,600	—
Oranges	27,480	—			

SECTION V.

HOUSING.

During 1940 the housing activities of the Corporation were further reduced and only 980 houses were completed in the year, compared with 2,227 in 1939 and 2,936 in 1938. Work on the majority of the 980 houses was commenced before the war, and except in special circumstances no further building is being undertaken.

The number of houses represented to the Housing Committee as uninhabitable was further reduced from 275 in 1939 to 157 in 1940. These houses were mainly in the Parliamentary Road area, for which a scheme had been drawn up before the outbreak of war. It had been intended to deal with the area under Section I of the 1930 Housing (Scotland) Act, but in view of the cancellation of new building it was decided to deal with individual houses under Section 16 of the above Act as and when new houses became available.

Statistics of decrowding in relation to houses vacated by families removing to new houses are shown in a table which follows. Out of 10,508 houses which have been inspected subsequent to the transfer of the occupants to Corporation houses since the passing of the Housing (Scotland) Act, 1935, only 18·2 per cent. were found to be again overcrowded, compared with 18·1 per cent. for houses inspected up to the end of 1939.

The scheme for the rehousing of tuberculous families—one of the most important preventive measures in the campaign against tuberculosis —has not been very successful; out of 150 recommendations during 1940 only 19 families have been rehoused, to which has to be added 33 families recommended in previous years and rehoused in 1940. Since 1929 1,391 overcrowded tuberculous families have been rehoused by the City Improvements Department out of a total of 3,539 families recommended by the Public Health Department.

Applications by tenants for certificates under the Rent and Mortgage Interest Restrictions Acts, 1920-23, during the year 1940 amounted to 3 compared with 29 in 1939, all 3 being granted. One application by a house factor for a report following on the execution of repairs was also granted.

The following tables summarise the more important aspects of public health operations under the Housing Acts:—

Decrowding Operations.

Condition of Vacated Houses since the Coming into Force of the Housing (Scotland) Act, 1935.

Size of House.	No. of Houses inspected.	Over-crowding removed.	Over-crowding reduced.	Over-crowding unchanged.	Over-crowding increased.
1 Apartment	2,225	1,695	476	32	22
2 Apartments	6,510	5,330	819	161	200
3 Apartments	1,622	1,438	103	28	53
4 Apartments and up	151	132	14	—	5
Total ...	10,508	8,595	1,412	221	280
		81·8%	13·4%	2·1%	2·7%

Housing Acts.

Number of Houses Represented since 1923 and Action Taken.

	Number of Houses represented.			Number of these Houses actually closed in each Year.		
Year.	Under Slum Clearance Schemes	Under Closing and Demolition Orders	Together.	Slum Clearance Schemes.	Closing and Demolition Orders.	Together.
1917-1937 ...	8,635	8,278	16,913	8,545	7,605	16,150
1938 ...	—	467	467	89	914	1,003
1939 ...	36	275	311	2	347	349
1940 ...	—	157	157	—	213	213
Totals ...	8,671	9,177	17,848	8,636	9,079	17,715

Houses Dealt with under Closing and Demolition Orders.

	Number of Houses.					
Year.	No. of Houses repre-sented.	Closed.	Demolished.	Converted to Business Premises.	Rendered Fit and Occupied.	Still Occupied.
1924-1930— (Under 1925 Act)	448	75	366	7	—	—
1930— (Under 1930 Act)	127	34	85	—	8	—
1931-1935	6,073	1,731	4,217	43	43	39
1936	402	229	162	10	1	—
1937	1,228	295	911	22	—	—
1938	467	69	396(i)	11	—	—
1939	275	166(ii)	148(iii)	1	—	—
1940	157	88	13	—	—	56
Totals	9,177	2,687	6,298	94	52	95

Includes houses dealt with by city after boundary extension.
(i)=9. (ii)=2. (iii)=38.

Inspection of Re-Housing Schemes.

(a) *Conditions as to Cleanliness.*

The nineteen special housing health visitors—or, as they are officially termed, " nurse-inspectors "—had under their care 14,669 houses in the various rehousing schemes, and made 51,907 visits in all. The duties are advisory as well as inspectorial and have a big and important human side, but it is customary to report from year to year the state of cleanliness of the new houses, as well as the prevention and control of infestation by the bed bug, in which the staff are specially trained.

At the end of 1940 there were 14,643 houses in occupation. Reports on these houses show that 9,812 were " clean," 4,677 were " fair," and 154 were " dirty," the percentages being respectively 67·0, 31·9, and 1·1. For 1939 the percentages were much the same—69·4, 29·7, and 0·9 per cent. These figures may be taken to represent a cross section of the rehoused families from uninhabitable houses. New tenants in the schemes numbered 395. There were 322 removals, or 2·2 per cent. of the occupancies ; of the removals 116 were evicted or left with rent in arrears and 206 left voluntarily for other houses.

Although the general percentages of " clean," " fair," and " dirty " houses were much the same at the beginning and close of the year, a number of changes took place in the respective categories. For instance, " fair " tenants numbering 249 and 3 " dirty " tenants had progressed sufficiently to be classed as " clean," and 30 " dirty " to be grouped as " fair." On the other hand, 525 " clean " reverted to " fair," and 57 fell back to the lowest category. The process of improvement takes time. The standard among tenants entering the schemes for the first time is not as high as the general average. For the year the proportion of " clean " houses among the entrants was 41, as against the normal 68 per cent.

Tenants evicted from rehousing schemes are also those who show up least satisfactorily in the cleanliness survey. In this group of 116 families 36 per cent. of the houses were " clean," 63 per cent. " fair," and 1 per cent. " dirty." Again, of the 206 families who left voluntarily to take up residence elsewhere 71 per cent. belonged to the " clean " category.

(b) *Bug Infestation.*

The total number of houses in which evidence of the presence of bed bugs was found was 315, or 2·1 per cent., which is the same percentage as in 1939. An analysis of this figure shows that only a " trace " of bed bugs was found in 55 houses, or 0·4 per cent., compared with 0·5 per cent. in 1939. In this group of houses only old hatched eggs or bug casts, but no living bugs or eggs, were found in the beds or furniture, pictures or other household belongings. In 75 houses, or 0·5 per cent., compared with 0·4 per cent. in 1939, a " medium " degree of infestation was found, and by this is meant that living bugs or eggs were found in beds or on furniture, pictures or other household belongings but not in the structure of the building itself. This condition is readily remedied by the tenants by applying the ordinary methods of household cleansing under the direction of the nurse-inspectors. In 185 houses, or 1·2 per cent., the same percentage as in 1939, a " serious " degree of infestation was found. In these houses living bugs or eggs or both were found in beds, on furniture or on pictures, and also in the structures of the apartments, such as picture rails, skirting and door facings. The eradication of bugs in these houses requires the co-operation of the tradesmen from the Maintenance Section of the Housing Department, whose procedure is to remove the infested woodwork from the walls and apply the blow-lamp directly or a contact insecticide. In the great majority of these houses infestation was detected at a fairly early stage by the nurse-inspectors. This is very important because it reduces to a marked degree the amount of interference with structures which has to be carried out by the tradesmen. In no houses throughout the year was fumigation by a lethal gas adopted.

The table submitted herewith shows the progress made during the past seven years in the prevention of bug infestation, which has fallen from 10·7 per cent. in 1934 to 2·1 per cent. in 1939 and 1940. It should be noted that the serious infestation has fallen progressively during that period from 7·1 per cent. to 1·2 per cent. throughout the rehousing schemes. This progress is further proof that the preventive system which has been practised in Glasgow during the past decade is thoroughly sound, as it depends for its success upon the cleanliness of tenants and the supervision by them of the nurse-inspectors, who are specially trained in the work of prevention of infestation by the bed bug.

Progress of Bug Infestation Prevention in Rehousing Schemes.

Year.	Number of Houses Inspected.	Number of Houses in which Bed Bugs were found.				Percentage of Total Number of Houses			
		Trace.	M.I.	S.I.	Total.	Trace.	M.I.	S.I.	Total.
1934	8,670	104	210	612	926	1·2	2·4	7·1	10·7
1935	10,576	218	368	378	964	2·1	3·5	3·6	9·2
1936	12,803	220	296	295	811	1·7	2·3	2·3	6·3
1937	13,676	253	165	304	722	1·8	1·2	2·2	5·2
1938	14,416	138	69	240	447	0·9	0·5	1·7	3·1
1939	14,609	79	62	168	309	0·5	0·4	1·2	2·1
1940	14,669	55	75	185	315	0·4	0·5	1·2	2·1

Trace—Trace of Bugs. M.I.—Medium Infestation.

S.I.—Serious Infestation.

SECTION VI.

BACTERIOLOGICAL LABORATORY.

The specimens submitted and reported upon in 1940 numbered 46,050, the figure for the previous year being 42,139. The sources of the specimens were Public Health Department (29,192), Medical Practitioners (16,603), and other Local Authorities (255). The category "Medical Practitioners" comprises private practitioners (the majority) and certain institutions in the city other than those of the Corporation.

Diphtheria.—During the year 12,821 swabs were examined for the presence of the diphtheria bacillus, and were derived from patients, from contacts, and from children as a preliminary to admission to the Corporation Country Homes; 20·8 per cent of the suspected cases and 5·7 per cent of the contacts were found positive.

Biological and Cultural Tests.—During the year 232 diphtheria-like cultures were examined; 179 of these proved to be *B.diphtheriae* culturally and 61 were biologically virulent. 64 nasal, 23 throat, 8 ear and 1 eye cultures were reported positive and considered virulent on clinical grounds; 22 were non-virulent diphtheria cultures, while 53 were proved by cultural means to be corynebacteria other than *B.diphtheriae.*

Types of Diphtheria Bacillus.—The rise in the frequency of occurrence of *B.diphtheriae gravis* was maintained. Of over 2,300 strains of *B.diphtheriae* examined during the year 57·6 per cent were of the *gravis* type, compared with 42·9 per cent last year. The monthly incidence varied from 32·2 per cent in January to 62·7 per cent in July. The relative percentages of *B.diphtheriae intermedius* and *B.diphtheriae mitis* were both a little lower than last year, and anomalous strains were very few.

Enterica Group—Examination of Blood.—Agglutination tests for the diagnosis of typhoid and paratyphoid fever were done with 197 specimens of blood from 192 persons, and of these only 40 gave a positive result.

Examination of Secretions.—The total number of specimens examined from cases, convalescents, contacts and carriers was 4,242 (faeces 2,272; urine 1,970). The positive results in the total number of specimens were 6 for B.typhosus and 791 B.para.B.

Dysentery and Food Poisoning—Dysentery.—From 107 persons the Flexner type of dysentery bacillus was isolated, and the Sonne type from 72 persons. 1,164 specimens in all were examined, including contacts and repeats for clearance. No carrier was discovered.

Food Poisoning.—With reference to cases of illness, 123 specimens were submitted from 83 persons, and in 21 of these food-poisoning organisms of the Salmonella group were found to be present.

Shellfish.—From one consignment of oysters 6 individual shellfish were examined for the Health Department during the year.

Tuberculosis—Human.—Specimens of sputum in suspected cases of pulmonary tuberculosis were examined as to the presence of the tubercle bacillus for medical practitioners and for the medical officers in charge of the tuberculosis dispensaries in the city. Medical practitioners submitted 1,935 specimens, while 2,359 were reported upon to the Health Department.

Other suspected materials such as urine, cerebro-spinal and pleural fluids, pus from gland abscesses, were reported upon, largely by means of biological tests.

Venereal Diseases.—The number of specimens examined in 1940 in connection with venereal diseases was 19,083. This total includes 7,297 specimens of blood and 157 cerebro-spinal fluids subjected to the Wassermann Test and 10,766 specimens of blood to the Kahn Precipitation Test. Many of these specimens, as occasion required, were examined by both methods and were thus reported. The Meinicke Clarification Test was also employed as occasion required. The total also included 804 specimens of exudate for the presence of Gonococcus, 38 specimens of blood for the Gonococcus Complement Fixation Test, and 8 smears for *Treponema pallidum*. The Colloidal Gold Test was done on 13 cerebro-spinal fluids. The majority of the Kahn Tests were submitted by Corporation clinics as a routine procedure. The sources of the specimens for the Wassermann Test were as follows:—

Public Health Department	4,563
Medical Practitioners of the City	875
Outside Local Authorities	32
Local Hospitals and Institutions...	1,984
	7,454

Ophthalmia Neonatorum.—Specimens of exudate from the eyes of 758 suspected cases of ophthalmia neonatorum were examined for the Child Welfare Centres, etc. Since repeated examinations are occasionally made to test the result of treatments, the number stated does not correspond to the actual number of cases. In 44 specimens only was the Gonococcus found.

Streptococcal Infections.—Search for these organisms was confined for the most part to isolated sources, such as scarlet fever contacts, nurses commencing training in maternity work, cases of mastoiditis, otitis media, suspected puerperal fever, etc.; 111 examinations were made with 6 positive results, 5 of which were puerperal cases.

The sources of specimens were as follows:—

	Health Department.	Medical Practitioners.	Ear, Nose and Throat Hosp.	Outside Authorities.
Scarlet Fever, etc.	3	15	15	—
Puerperal Fever	37	41	—	—
	40	56	15	—

Plague.—During the year 511 rats—239 males, 272 females—were examined for evidence of plague, with negative results. The species of rats examined were:—*Mus decumanus*, 124; *Mus rattus*, 227; *Mus alexandrinus*, 160.

Milk Supply.—The number of samples tested biologically for tubercle bacilli was 644. The city milk supply yielded 7 per cent tuberculous out of 356 undesignated samples, and 4·3 per cent tuberculous out of 69 designated samples. All the samples—142—of the milk supplies of the hospitals were found to be free from tubercle bacilli, as also were all samples of pasteurised milk supplied to schools (12) and Child Welfare Centres (23). From other Local Authorities 42 samples included 4 which were tuberculous (9·5 per cent).

The milk supplies of the city, as well as those supplied to Child Welfare Centres and schools—546 samples in all—showed an improvement as to amount of bacterial content compared with the previous year. The results found with the hospital supplies (164 samples) and with graded milks (383) examined for the Health Department were very similar to those reported for the year 1939.

City Water Supply.—153 samples from the reservoirs and other sources were examined during the year and reported upon to the Health and the Water Departments.

Public Baths Water.—85 samples from 8 swimming ponds were examined and reported to the Baths Department, thus providing information upon the effects of filtration and chemical treatment.

Biological Laboratory.—690 biological tests were carried out during the year. These concerned determination of virulence of organisms, fixing diagnosis in certain possible tuberculous infections, including milk supplies, etc.

SECTION VII.

FOOD.

Food Infection.—There was a noticeable increase in the number of cases of suspected food poisoning reported during the year. While the clinical evidence in the majority of cases susggested food poisoning, in one instance only was this verified on bacteriological examination. In this case a Salmonella bacillus closely resembling S. aertrycke (Mutton Type) was found in a specimen of cold roast pork, portion of which had caused illness in a family of five persons.

In addition there were five instances where a Salmonella bacillus was found in the faeces of patients admitted to hospital as query enteric fever cases. In no instance, however, was there any history of illness following the consumption of food, and source of the bacillus remained undetermined in each case.

Tinned salmon was responsible for illness in eleven instances, involving in all fifty-four persons. In each case the symptoms and history were similar, *i.e.* vomiting, diarrhoea, and acute abdominal pain. The illness was sufficiently acute in the majority of cases as to necessitate their removal to hospital. Extensive bacteriological and chemical examinations were made, but without result as no harmful organism, toxin or metallic substance was detected.

Aerated Waters.—The contamination of aerated waters by disinfectant continues to be a source of complaint, and several cases of illness after drinking from such bottles are to be attributed to this practice.

The trace of phenol discovered on examination was in no case of sufficient quantity to have any toxic effect but enough to give the liquid a disagreeable flavour.

SUMMARY OF OPERATIONS UNDER THE FOOD AND DRUGS (ADULTERATION) ACT, THE MILK AND DAIRIES ACTS, AND ALLIED ACTS AND ORDERS FOR THE YEAR ENDING 31st DECEMBER, 1940.

The Food and Drugs (Adulteration) Act, 1928.—In the course of the year 186 different articles of food and drugs were examined. Altogether 1,310 formal and 3,270 informal—totalling 4,580—samples were submitted for analysis; 63 (4·81 per cent.) of the formal and 111 (3·39 per cent.) of the informal samples were reported as being adulterated. Proceedings were taken in 52 cases, in 48 of which convictions were recorded. Three charges were departed from, one owing to a death and two after the convictions of the wholesalers who had supplied the adulterated food. In the other case the respondent was found "Not Guilty." Among the number of cases dealt with five were second and three were third offences, while one was a sixth offence. The fines imposed totalled £134. Two infringements in connection with the retail sale of margarine were dealt with under the new Food and Drugs Act, 1938.

Abstract of Total Samples Examined during 1940.

Article.	Informal.		Statutory.		Percentage adulterated.		Percentage of Samples taken in each Group to Total.	
	Taken.	Non-Gen.	Taken.	Non-Gen.	Infor.	Stat.	Infor.	Stat.
					%	%	%	%
Milk and Cream	1,978	71	808	24	3·59	2·97	60·49	61·68
Milk Products (Butter, Cheese, etc.) ...	44	2	43	1	4·55	2·33	1·35	3·28
Meats and Meat Food Products	153	14	132	31	9·15	23·48	4·68	10·08
Cereals, etc.	110	—	46	—	—	—	3·36	3·51
Spirituous Liquors ...	29	2	7	1	6·90	14·29	0·89	0·53
Drugs	285	17	66	5	5·96	7·58	8·71	5·04
Flavourings & Condiments	152	—	42	—	—	—	4·65	3·21
Miscellaneous Foods, etc.	519	5	166	1	0·96	0·60	15·87	12·67
Totals	3,270	111	1,310	63	3·39	4·81	100·00	100·00

Abstract of Informal and Statutory Samples of Sweet Milk Examined during 1940.

Informal.					Statutory.			
No. examined.	No. presumed Non-Gen.	Average percentage Composition. Fat.	Average percentage Composition. Non-Fat.	1940. Month.	No. examined.	No. presumed Non-Gen.	Average percentage Composition. Fat.	Average percentage Composition. Non-Fat.
		%	%				%	%
125	6	3·73	8·82	January	72	2	3·61	8·81
159	3	3·70	8·78	February	72	1	3·66	8·84
166	9	3·71	8·72	March	70	2	3·62	8·79
184	5	3·73	8·69	April	74	5	3·62	8·73
177	5	3·66	8·81	May	73	1	3·74	8·70
144	4	3·61	8·77	June	66	5	3·52	8·80
163	2	3·80	8·72	July	53	—	3·62	8·72
168	5	3·74	8·75	August	57	1	3·66	8·70
141	4	3·81	8·78	September	61	1	3·75	8·81
159	3	3·92	8·75	October	66	—	3·90	8·80
153	7	3·75	8·64	November	67	—	3·89	8·75
191	16	3·78	8·68	December	72	6	3·75	8·74
1,930	3·58	3·74	8·74		803	2·99	3·69	8·77

The Public Health (Preservatives, etc., in Food) Regulations.—No prohibited preservative or any colouring matter was found in samples examined during the year. The use of borax to an amount not exceeding 0·25 per cent. is at present, owing to the national emergency, being permitted in margarine. It is a condition of the licence issued to manufacturers that this amount should not be exceeded. Also, meanwhile, cooked pickled meat, bacon and ham may contain added sodium of potassium nitrite not exceeding 200 parts per million in the case of pickled meat. Butchers still continue to be the chief offenders against the Regulations. For contraventions of the Regulations 23 cases were dealt with, compared with 43 last year.

Milk (Special Designations) Orders (Scotland), 1936-1938.—Producers in the city taking advantage of the premiums paid through the medium of the Milk Marketing Board for the production of quality milk number 24. In addition there are two herds owned by the Corporation in respect of which tuberculin-tested licences are granted.

Of 33 samples of "Standard" milk examined biologically three were found positive to tubercle bacilli. Fourteen samples of "Certified" and "Tuberculin-Tested" milk were similarly examined, all of which proved negative. The different grades of designated milk dealt in are shown in the following table, along with the average daily quantities. The number of producers, dealers and bottling establishments licensed in terms of the Milk (Special Designations) Orders is also included.

	1940	1939	1938
Certified—			
Producers	—	—	—
Dealers	236	247	271
Total Average Daily Sales (Gallons) ...	248	298	406
Tuberculin Tested—			
Producers	3	3	4
Bottling Establishments	6	7	7
Dealers	417	427	445
Total Average Daily Sales (Gallons) ...	*1,437	†2,445	‡2,785
Standard—			
Producers	23	21	10
Bottling Establishments	—	—	—
Dealers	—	—	—
Total Average Daily Sales (City Producers only) (Gallons)	1,447	1,402	658
Pasteurised—			
Pasteurising Establishments	7	7	6
Dealers	326	328	261
Total Average Daily Sales (Gallons) ...	26,399	19,145	15,125

Includes * 532 gallons Tuberculin Tested (Pasteurised).
† 1,348 ,, ,, ,, ,,
‡ 1,174 ,, ,, ,, ,,

Note.—The quantities shown in the table do not include supplies to institutions of milk of Pasteurised standard not sold under that designation.

Samples of the foregoing taken during the year numbered 383. All were submitted to the City Bacteriologist and the City Analyst for examination regarding their conformity with the requirements of the Orders. In the following table the results are set out in detail:—

Results of Examinations of Designated Milks.

		Certified. (a) Not more than 30,000 bacteria per ml. (b) No coliforms in 1/10 ml.	Tuberculin Tested (a) Not more than 200,000 bacteria per ml. (b) No coliforms in 1/100 ml.	Tuberculin Tested (Pasteurised) (a) Not more than 30,000 bacteria per ml. (b) No coliforms in 1/10 ml.	Standard. (a) Not more than 200,000 bacteria per ml. (b) No coliforms in 1/100 ml.	Pasteurised. (a) Not more than 30,000 bacteria per ml. (b) No coliform requirement.
Bacteriological Examination	Number examined	58	97	21	114	93
	Number conforming to count and coliform requirements.	40	76	16	92	79 Conforming to Count
	Number exceeding count only.	3	6	—	6	14 Exceeding Count
	Number exceeding count and having coliforms present	12	7	2	10	*11
	Number conforming to count but having coliforms present	3	8	3	6	*22
	Agar Count per ml. Lowest ...	400	400	200	1,000	400
	Agar Count per ml. Highest ...	1,000,000+	1,000,000+	160,000	1,000,000+	1,000,000+
	Presence of Coliforms — ...	43	82	16	98	—
	Presence of Coliforms + ...	15	15	5	16	—
Chemical Examination.	Fat Minimum 3% Number 3% or over.	57	97	21	114	93
	Fat Minimum 3% Number below 3%.	1	—	—	—	—
	Average Butter Fat Content	3·99	3·90	3·76	3·80	3·74

* As no coliform requirement, only included for reference.

The table shows that 79·11 % of the samples examined were in compliance with the standards required, as compared with 85·68 per cent. last year. This shows some decline. Regarding milk fat, 99·74 per cent. of the samples conformed, which is practically equal to last year's figure of 99·23 per cent.

Examination of Ordinary Market Milk for the Presence of Tubercle.— Samples obtained from the city dairies on the arrival of the milk are submitted for biological examination. Two hundred and fifty-four samples were examined in the city laboratory during the year and 16 were found to be tuberculous. This shows a percentage of 6·30 as against a percentage of 9·39 in the previous year, which is more satisfactory. The following table shows the figures for the year, along with those of the two years previous, and shows also the county in which the milk was produced :—

SAMPLES OF PRODUCERS' SUPPLIES EXAMINED FOR THE PRESENCE OF TUBERCLE.

County.	1940		1939		1938	
	No. Examined	No. Tuberculous.	No. Examined.	No. Tuberculous.	No. Examined.	No. Tuberculous.
Argyll	1	—	—	—	—	—
Ayr	59	2	156	11	103	4
Bute	3	—	—	—	—	—
Dunbarton... ...	12	—	13	—	10	2
Glasgow	7	2	4	—	10	1
Lanark	90	7	74	7	111	6
Perth	—	—	2	1	—	—
Renfrew	40	4	40	7	67	3
Stirling	38	1	21	3	11	—
Ireland	4	—	—	—	—	—
	254	16	310	29	312	16

Bacterial Counts of Ordinary Market Milk Supplied to the City.— Three hundred and six samples were examined for the number of bacteria present and for coliform bacillus. The results are shown in the following table :—

BACTERIAL COUNTS OF ORDINARY MARKET MILK SUPPLIED TO THE CITY.

Number examined.	Average number of Bacteria per ml.					Coliforms in 1/100 ml. (2 days).	
	Under 100,000	100,000 to 200,000	200,000 to 500,000	500,000 to 1,000,000	Over 1,000,000	–	+
306	188	30	46	5	37	209	97

Viewed from the number of bacteria found, 103 (54·79 per cent.) of the 188 samples with less than 100,000 bacteria per millilitre were of Certified quality, compared with 133 (62·44 per cent.) of the 213 with less than 100,000 in 1939. Two hundred and eighteen (71·24 %) of the total number of samples taken were equal to Tuberculin Tested quality, compared with 243 (78·39 per cent.) in 1939. Coliforms were absent in 209 samples (68·3 per cent.) compared with 221 (67·7 per cent.) in 1939. The 306 samples were also submitted for chemical analysis ; 42 were found to be low in non-fatty solids. The average fat and non-fat content of the samples was 3·76 and 8·69 per cent. respectively.

Raw Milk as Retailed in the City.—One hundred and eight samples of raw milk as retailed were taken from shops and carts in the city. Five of this number (4·63 per cent.) were found positive to tubercle bacilli, compared with 2 of 103 (1·94 per cent.) last year. Adverse results when received are communicated to the Medical Officers of Health of the districts where the milk was produced, and steps are taken meanwhile to prevent the sale of any infected milk. This raw milk, supplied usually by wholesale and retail producers, decreases in quantity each year.

The samples were also examined for the number of bacteria and the presence of coliforms. Results are detailed in the following table :—

Bacterial Counts of Raw (Untreated) Milk as Retailed in the City.

	Average Number of Bacteria per ml.						Coliforms in 1/100 ml. (2 days).	
Number Examined.	Under 30,000	30,000 to 100,000	100,000 to 200,000	200,000 to 500,000	500,000 to 1,000,000	Over 1,000,000	–	+
108	43	23	21	14	5	2	75	33

Milk to School Children—Ninety-six samples were taken from this supply of milk during the year. A table which shows a summary of the results follows. Another table shows the average daily quantity supplied computed on a monthly basis and also shows the number of school days which occurred in each month.

School Milk, 1940.

No. examined.	No. exceeding Count.	Bacteria per millilitre. Highest.	Lowest	Average.	No. Tuberculous.		Fat and Non-Fat Solids. Highest Sample.	Lowest Sample.	Average of all Samples
96	28	480,000	100	32,019	*None	Fat Solids	5·40	3·20	3·76
						Non-Fat Solids	8·43	8·49	8·70

* 11 samples only were examined biologically. This was due to the scarcity of cavies.

Average Daily Quantities Supplied.

Month.	Gallons.	School Days.	Month.	Gallons.	School Days.
January	41·84	13	July	1,434·67	20
February	114·80	17	August	1,458·16	25
March	268·80	17	September	2,944·41	15
April	594·97	20	October	3,595·23	19
May	1,453·83	25	November	3,931·56	25
June	2,689·51	20	December	4,123·50	15

Inspection of Food and Food Premises.—To ensure compliance with the various Acts and Regulations, 11,926 inspections were made by the Food Inspectors of markets, stores, shops and places where food is dealt with. One hundred and two lots of food were destroyed, comprising fruit, vegetables, bacon and ham and miscellaneous tins of cooked foods. These totalled 33 tons 14 cwts. 19 lbs. Premises were generally found to be kept in a satisfactory condition. For having an unsound article of food deposited for sale for human consumption a trader was fined £2. In connection with the Public Health (Meat) Regulations (Scotland), 1932, ten premises were registered and certificates of approval issued in respect of them. Thirty-seven copies of certificates were issued in connection with vehicles operating from these premises.

Dairies.—Dairies on the register at the end of the year numbered 1,682, compared with 1,728 last year, showing a decrease of 46. This number is made up as follows :—59 producers, 21 wholesalers, 58 whole-

sale and retail dealers, 761 retailers of loose milk, 753 retailers of bottled milk only, and 30 carts from without the district. For the purpose of the Milk and Dairies (Scotland) Act, 1914, these carts are considered premises within the city. A qualified certificate of registration is granted where milk is supplied only in properly capped and sealed bottles, as received from the wholesaler. This certificate is usually granted where the shop does not satisfy the terms of the dairy bye-laws. The percentage of these dealers is 44·8 of the total number registered, compared with 43·4 in 1939. During the year 21,484 inspections were made of dairies, and 74 contraventions were dealt with. In 60 instances repairs and alterations were carried out as requested. Fines amounting to £2 were imposed on persons who failed to apply for and obtain registration as dairymen. One person was fined £1 for failing to cleanse and lime-wash walls and ceilings when requested to do so. Another was fined £1 for keeping or storing milk vessels in a sleeping apartment.

Byres.—There are 59 producers in the city, with 71 byres; 514 inspections were made of these byres, which were found to be generally well kept. Repairs were carried out in five instances as requested, and four cases of contraventions of the bye-laws were discovered and the offenders cautioned. There is provision for 1,816 cows in the byres, and the average number kept is 1,607. In one case only no grazing facilities are provided for the cows.

Exempted Persons.—In the city there are three byres where persons keep cows for their own use. The number of cows kept averages four. In addition the Public Health Department have two herds of attested cows within the city, the number approximating 173 animals. This milk is produced for use in Corporation institutions only. All these byres were supervised regularly and found to be well kept.

Milk and Dairies (Scotland) Order, 1934.—One prosecution was taken under this Order for the offence of keeping milk vessels in a sleeping apartment—the offender was fined £1. Persons discovered consigning milk by common carriers in unlabelled and unsealed vessels were duly cautioned. All samples of cream examined for the presence of colouring or thickening matter proved genuine.

Food and Drugs (Adulteration) Act, 1928, Section 8—Registration of Butter Factories and Wholesale Dealers in Margarine, etc.—There are one margarine factory and 150 wholesale dealers in margarine on the register. This is an increase of five wholesale dealers in margarine from last year. Visits were paid to these premises in the course of the year and no contravention was found. Butter and margarine samples taken were reported upon satisfactorily by the City Analyst. Details of the number on the register at the end of the year are as follows :—

Factories of margarine	1
Wholesale dealers in margarine	150
Factories of or wholesale dealers in milk-blended butter ...	—
Butter factories	20

Ice Cream Shops.—At the end of the year the number of persons registered as dealers in ice cream was 480, a decrease of 22 from last year. Inspections of premises numbered 6,576, as a result of which 9 contraventions were found and remedied. Repairs and alterations were effected in 6 instances.

Cleanliness of Milk Bottles.—Thirty-two bottles were procured from dairies for examination as to their cleanliness and sterility. These bottles were washed and ready to be filled with milk. Nineteen were reported upon by the City Bacteriologist to be satisfactorily washed, 17 of the number being sterile. Twelve bottles had bacterial counts which varied from 120 to 72,000 organisms per bottle, and in the remaining three bottles the organisms were uncountable. The U.S. Ordinance and Code fixes a maximum of 600 organisms per pint bottle as a standard of cleanliness. In cases where cleanliness was unsatisfactory, offenders were cautioned and requested to exercise greater care. The machines and methods used in washing were the soaker-sprayer and the jet type machines and rotary and hand brushes. The soaker-sprayer and the jet type of bottle washing machine showed the best results, while rotary and hand brushes were poorer.

The Food and Drugs (Adulteration) Act, 1928.

Details of Samples, etc., in which Proceedings were Instituted during 1940.

No. of Complaints.	Nature of Sample and Alleged Offence.	No. of Convictions.	Amount of Fines Imposed.
2	*Margarine*—Failing to attach the statutory label when exposed for sale by retail	2	£1 10 0
9	*Milk (Sweet)*—Deficient in milk fat	9	32 0 0
9	*Milk (Sweet)*—Deficient in solids other than fat	*7	26 0 0
2	*Milk (Sweet)*—Deficient in milk fat and in solids other than fat	2	9 0 0
17	*Mince*—Contained preservative during proscribed period	17	37 15 0
6	*Sausages*—Contained an excess of preservative	6	12 0 0
2	*Butter*—Contained a foreign fat	†1	10 0 0
1	*Sugar*—Admixed with washing soda	1	1 10 0
1	*Camphorated Oil*—Deficient in camphor ...	1	1 10 0
1	*White Precipitate Ointment*—Contained an excess of white precipitate	1	1 5 0
1	*Whisky*—Contained an admixture of water ...	1	1 10 0
1	*Tincture of Iodine*—Deficient in iodine and potassium iodide	‡—	—
52		48	£134 0 0

* deserted simpliciter, 1 ; dismissed or found " not proven," 1.
† deserted simpliciter, 1. ‡ deserted simpliciter, 1.

Abstract of Proceedings under other than the Food and Drugs (Adulteration) Act during 1940.

Act, Order, &c.	Nature of Alleged Offence.	No. of Complaints.	No. of Convictions.	Amount of Fines impose.
Milk and Dairies (Scotland) Act, 1914.	Failing to register as a dairyman	3	3	£2 0 0
Milk and Dairies (Scotland) Order, 1934.	Keeping or storing milk vessels in a sleeping apartment	1	1	1 0 0
Dairy Bye-laws.	Failing to keep thoroughly clean the walls and ceilings of dairy premises	1	1	1 0 0
Dairy Bye-laws.	Bottling milk elsewhere than in a milk shop or bottling room ...	1	1	Admonished
Glasgow Police Amendment Act, 1890.	Having an unsound article of food deposited for sale for human consumption... ...	1	1	2 0 0
		7	7	£6 0 0

SECTION VIII.

AIR PURIFICATION AND SMOKE ABATEMENT.

Until July, 1940, the work of this section was carried on along normal lines, although to a somewhat restricted extent owing to the continued absence of part of the staff on mechanical transport duties connected with the A.R.P. Casualty Services. Increasing demands necessitated two inspectors returning from this work to their normal duties in March.

During this first half of the year under review conditions in the industrial field continued to be increasingly difficult from the standpoint of smoke abatement owing to the accentuation of the factors mentioned in the abbreviated report for 1939. These were the increasing load demands on industrial plants and the disturbance of normal fuel supplies as regards quantity, quality and grading. In practice previously accepted standards of smoke emission had to be waived, and almost the whole of the inspectors' efforts were directed to keeping the emitted smoke within tolerable limits, primarily to prevent local nuisances being caused.

Continued visitation of plants in the respective areas of the city and the technical advice given to users and operatives to meet the conditions existing as regards load demands and fuel supplies did result in obviating many complaints and also in preventing recurrence of complaints. In spite however of these efforts, the volume of smoke emitted *in cumulo* was undoubtedly on the increase, and noticeably so in certain concentrated areas.

In July, 1940, owing to a general change in policy throughout the country to meet certain war exigencies, the procedure undertaken by the inspectorate changed. A detailed visitation of over 1,600 " industrial " and " non-industrial " premises was made during the latter half of the year. This involved continuous and steady efforts on the part of the restricted staff. In each instance the attention of the firm was directed to the altered requirements and detailed information given to meet the local conditions.

Summary of Work Done.—The following is a summary of the observation and inspection work, etc., carried out by the restricted staff during the first half of the year. It comprises all chimneys (other than domestic) and the accompanying plant :—

Number of Observations of Chimneys	10,340
Number of Inspections of Steam Boilers and other Furnaces	150
Number of Intimations of Excess Smoke given	150
Number of Initial Warning Notices served	10

Improvements to Plant during 1940.—Owing to the changing conditions in industry during the period, with the consequent replacement of boilers, furnaces and other appliances which in normal times would have been conducive to increased efficiency and reduced smoke emission, which is in many instances offset by increasing load demands, no record is meantime being given. These new installations will be noted when full benefit is being derived from the increased capacity, and will be included in a subsequent report, as is the yearly practice.

Prosecutions.—During the first half of 1940 it was found necessary to institute proceedings against three persistent offenders for recurring smoke emission. The defendants in each instance had been previously warned and advised on several occasions consequent on the receipt of persistent complaints from the neighbourhood. Convictions were recorded in each case. One prosecution involved a first offence, where the monetary penalty was £1 10s. Another was in respect of a first offence, where the defendant was admonished ; and another in respect of a third offence, where the fine was £3. These prosecutions are instituted under the provisions of the Glasgow Police (Further Powers) Act, 1892, Section 31, and are heard before the Stipendiary Magistrate in the Central Police Court. It might be stated again that the amicable abatement of a nuisance is more desirable to this Department than a successful prosecution. The latter course is only adopted when reasonable warning and advice are apparently being unheeded or where only half-hearted attempts are being made to remedy the causes of nuisance.

Investigation of Complaints.—This important aspect of the inspectors' duties was very much in the forefront during the year consequent on the speed-up in industry, and later in the year due to the aforementioned altered policy as regards smoke abatement. In the latter connection it was pointed out to each plant user that the possibility of local nuisance arising must not be lost sight of, and every endeavour made to obviate

such occurrence. Difficulties with the types of fuel being supplied were the cause of many complaints, and many such complaints were not amenable to salutary remedial measures being adopted. In most instances a compromise had to be effected between the load demand, the fuel supplies, and the method of operation. Under such conditions it was not surprising that in a number of instances involving larger plants, complaints continued to recur.

Soot Precipitation Gauges.—The monthly records of basic dust and artificially produced soot precipitation from the five gauges throughout the city were carried on without interruption. The following is a summation of the information which is normally published in detail year by year:—

DEPOSIT OF EACH ELEMENT OF ATMOSPHERIC POLLUTION FOR 1939 AND 1940.

	Tons per Square Mile. 1939.	1940.
Insoluble Matter—		
Tar	3·19	4·29
Carbonaceous other than Tar	42·25	46·69
Ash	93·98	108·46
Total Insoluble Matter	139·42	159·44
Total Soluble Matter	92·64	92·29
Total Solids	232·06	251·73
Rainfall in Millimetres	893·26	839·86

Classes in Smoke Abatement and Boilerhouse Practice.—Glasgow has always considered that a necessary corollary to the work of air purification administration is the technical education of the personnel engaged in the operation or maintenance of the potential smoke producing plants. As a result of this basic policy winter sessions of technical instruction have been run under the joint auspices of the Scottish Branch of the National Smoke Abatement Society and the Corporation. The success of these classes in normal times, having regard to conditions of work of the members, was for many years most remarkable. During the first winter of the war a restricted class was maintained, and during the past winter, *i.e.* 1938-1940, in consequence of many enquiries from intending students, a course was again arranged. The chief smoke inspector was lecturer. The usual ordinary and advanced classes were organised,

but during the session, owing to the number of members being called to the Services and being otherwise engaged on national duties which precluded their sustained attendance, the two classes were merged into one which was conducted on the higher standard of instruction. The total enrolment was 49, the total number of lectures 18, each of $1\frac{1}{2}$ hours' duration, and the average attendance for the session was 60 per cent. The number sitting the routine examination held on the 8th of February, 1941, was 15. Of this number 13 gained merit certificates of competency. The usual book prizes were allocated to each class, only *bona fide* stokers or boiler attendants attaining 70 marks or over being eligible to compete. In addition Councillor Munro again gave a technical book prize to the highest eligible candidate of both classes who is employed in a Corporation department and who was not already a prize-winner. An additional lecture was given later to a candidate from the class going forward to the City and Guilds of London Institute examination on boilerhouse practice, at which he gained a first class certificate. The annual social meeting of the branch was held during May, when the certificates and prizes were distributed.

SECTION IX.

GENERAL SANITARY OPERATIONS.

It has again been found necessary with the continuance of war conditions to follow the precedent set last year of not publishing the usual Divisional Reports and the Tables giving details of general sanitary operations and to group all matters pertaining thereto into a general report in abridged form.

Notwithstanding depleted numbers, the members of the inspectorial staff have carried out their multifarious duties, often under extremely trying conditions, in a very satisfactory manner.

The most severe and prolonged spell of frost which has been experienced for many years occurred in the early part of 1940, and for some considerable time the staff had to leave practically everything else neglected and concentrate on the renewal or repair of the many damaged pipes and fittings.

Visits of inspection totalled 574,284, and resulted in 66,353 nuisance intimations being sent to the authors under the Public Health and local Police Acts. These nuisances were, as usual, varied in type, and none calls for special comment.

Air Raid Shelters.—The compiling of a register of air raid shelters throughout the city, and their regular inspection, has added considerably to the work of the Sanitary Inspectors.

The population of the city for which air raid shelter facilities should be provided has been estimated at—day 1,127,828; night 1,000,000—and the following table shows at a glance the progress made towards this target.

Division.	Public Shelters.			Communal or Tenement Shelters.				Commercial, Industrial and School Shelters open after Business Hours.			
	Surface Shelters Open all Hours.	Trench Shelters open all Hours.	Basement Shelters open all Hours.	Surface.	Trench.	Strutted Closes.	Basement.	Surface Shelters Open after Business Hours.	Trench Shelters Open after Business Hours.	Basement Shelters Open after Business Hours.	Shelters in Commercial Buildings not yet taken over under Defence Regulations.
Central	319	1	11	627	—	1,219	186	186	—	74	348
Northern	234	4	—	1,134	—	2,114	165	507	2	4	18
Eastern	192	22	2	784	1	2,062	31	251	6	12	43
South-Eastern	199	—	7	605	1	1,399	38	365	—	7	—
South-Western	323	2	—	531	—	1,337	76	228	5	6	23
Total	1,267	29	20	3,681	2	8,131	496	1,537	13	103	432

In addition there are 23,000 Anderson shelters and single-cell surface brick-built domestic shelters.

The number of persons provided for under the different headings until 31st March, 1941, is as follows:—

Domestic Shelters—

Sectional Steel Shelters	126,356
Domestic Surface Shelters	182,239
Basements Strengthened	12,794
Strutted Closes	344,000
Baffled Closes	14,000
Total	679,389

Work in Hand—

Sectional Steel Shelters	240
Domestic Surface Shelters for a population of ...	30,679
Basements strengthened to accommodate	8,090

Public Shelters—

Trenches	18,465
Basements...	28,297
Tunnels	400
Railway Arches	396
Surface Shelters	60,597
Ground Floor Shelters	1,218
School Shelters	60,200
Total	169,573

Under the provisions of the Civil Defence Act, 1939, "Air Raid Shelter" means protection otherwise than by warlike means or by any article of apparel from hostile attack from the air, and "an air raid shelter" means any premises, structure, or excavation used or intended to be used to provide air raid shelter.

The primary object of the air raid shelter is thus to provide protection against attack from the air, and little thought was given to the question of health conditions in the shelter. However, the severe bombing of some of the English towns, and the extensive use of shelters for long periods and as sleeping places, brought the question of health conditions prominently to notice. The advice of Public Health Authorities was desired on this question, and the Medical Officer of Health remitted the matter to the Divisional Sanitary Inspectors for consideration and report.

The Divisional Inspectors were able to assure the Medical Officer that regular inspection of public air raid shelters is carried out to ensure the maintenance of cleanly conditions, but that structurally some improvements were necessary. They decided to recommend that floors should be of smooth, impervious material, with a fall towards the door for cleansing purposes and dryness, and that the walls should be rendered in a washable distemper.

It was emphasised that ventilation is essential, and while the present method of construction, with open doorway and wall gratings, provides sufficient ventilation it permits and tends to encourage nuisance. To remedy this it was suggested that sparred doors should be fitted with plain latch at a height out of reach of children, and it was mentioned that if the door opens not more than 90 degrees the standards could be set off the plumb and doors would then be self-closing. This suggestion has been more than carried out, sparred doors having been fitted with locks in preference to latches.

Basement shelters, it was suggested, must be dealt with individually and means of ventilation provided where necessary.

This question of ventilation of shelters was subsequently dealt with by the Ministry of Home Security, and the means to be adopted to secure adequate ventilation were detailed in a circular (H.S.C. 3/41) from Whitehall.

Closely allied to the subject of ventilation is that of heating. In the report of Lord Horder's Committee it was stated: "There are objections to heating the majority of shelters during their occupancy which outweigh the advantages. . . . Shelters which are liable to crowding do not require heating, even in winter. Such danger to health as there is in connection with the temperature of a crowded shelter lies in the possibility of too high rather than too low a level. It is the sparsely occupied shelter which presents the greatest difficulty. Here some form of heating during the latter part of the daytime might be considered."

In this connection we are carrying out some experiments at the present time which may be helpful in solving the problem of the necessity of heating.

The Divisional Inspectors further recommended that all shelters should be efficiently lighted and that seating accommodation should be provided. The Regional Commissioner has now announced that the Secretary of State favours the installation of lighting in all shelters other than the smaller domestic shelters—in these users should make their own arrangements.

The Secretary of State, it has been announced, also regards seating in shelters as a necessity, not a mere convenience, and the Regional Commissioner has laid down a table indicating the extent to which seating should be provided. In all public and communal shelters the aim should be full seating, that is seats for the total number of shelterers for whom shelter is designed; in shelters with a capacity of between 24 and 50 persons, half-seating; and no seating in small shelters unless under special circumstances. In our Glasgow shelters this work of providing seating and lighting is in progress.

The nature of latrine accommodation to be provided in shelters has been much debated. Because the word "closet" was used in the Rules and Orders made under the Defence Act, it was thought that the water closet was ruled out, and thousands of dry closets have been installed in city shelters. Even where water closets existed, dry closets were provided, and in some cases water closets were removed and dry closets installed. These conveniences were in many cases placed in dark positions, inadequately partitioned from and ventilated directly into the shelter. The Divisional Inspectors are strongly opposed to this system. They allege that the so-called chemical closet does not function

as claimed, and is more expensive—cost plus expense of cleansing and recharging. If drainage is conveniently accessible they claim that water closets should be installed, and the convenience should be situated in a compartment entered from the shelter but with external ventilation if possible. This system is now being adopted in places which have had a wide experience of air raids—London, Liverpool, Bristol, etc. In some of those places the dry closets or chemical closets are being removed and water closets substituted, and the Scottish Regional Commissioner now advises the adoption of the water closet type of sanitary convenience whenever practicable.

With regard to water supply, the Divisional Inspectors recommend that a " stand pipe " should be provided in a suitable position at each shelter to serve the double purpose of supplying drinking water and providing facilities for cleansing. The provision of a container for drinking water has been tried, but it is not satisfactory. The manner in which some of those containers have been misused is beyond belief, and the Secretary of State has now announced that wherever possible a piped supply should be made available and the water supplied through a tap.

In the course of our inspection it is amazing and distressing to note the destruction caused by those who take advantage of the means provided for their safety. In many shelters the screens around the closets have been torn to shreds ; in others these screens have been cut down and removed to be used, it is alleged, for black-out blinds. Hundreds of electric globes have been stolen, doors have been unhinged and carried away, and in several instances chemical closets have been stolen. All this damage must be caused during " alert " periods, because at other times the shelter doors are locked. Surely this state of affairs emphasises the advice of the Medical Officer of Health that the appointment of shelter marshals is essential.

Military Camp and Billets.—Co-operation of Civil with Navy, Army, and Air Force Authorities on sanitary matters :—

The inspection of camps and billets in collaboration with the Services and in terms of D.P. Circular No. 1 of 31st August, 1939, issued by the Department of Health for Scotland, was continued throughout the year. Over the period 413 inspections were made, and without exception the quarters were found clean, free from overcrowding, and provided with adequate means of light and ventilation. Special attention was

given to the disposal of refuse and to the disinfection and disinfestation of bedding. In connection with the latter, no fewer than 120,598 articles were dealt with at the disinfecting stations of Ruchill and Belvidere Hospitals. There was a noteworthy decrease in the number of articles treated for vermin. Nuisances discovered and remedied—all of a minor nature—numbered 32.

Verminous Children.—This subject has been given great prominence by interested people after the disclosure that many of the school children hurriedly evacuated in the early days of the war were verminous. Although a regular and systematic inspection of school children for the detection of vermin has been pursued for many years with good results, it appeared that in light of wartime experience some of the gaps in administration would require to be overcome if the standard of cleanliness was to be improved.

In the past the only school children examined by the nurse inspectresses for cleanliness were those submitted by the teaching staffs, and possibly many children who were infected, but not obviously so, escaped the notice of their teachers. This procedure of inspection is in accordance with Section 15 of the Glasgow (Police) Order Confirmation Act, 1904, which gives the power to the sanitary inspector or any authorised member of his staff to serve a notice on the parent or guardian of a child attending school in a verminous or filthy condition and which child has been selected by the teacher for the nurse's inspection. If the notice served on the parent is not complied with the child may be taken to a place provided by the local authority for the cleansing of such children. In practice, children have been taken by nurses for cleansing purposes, but experience shows that the improvement of the child's condition is only temporary because the child very often returns home to sleep with infected brothers or sisters under or over school age, and is thus re-infected in a matter of days.

The Section of the Act referred to does not give power to examine children under or over school age, nor is there a penal clause for failing to maintain a school child in a cleanly condition.

To overcome these gaps or difficulties in administration a system of inspecting all the scholars in selected school at regular intervals was adopted, in addition to the ordinary inspection of children known to be infected, and as a result of this intensive inspection many more children have been found to be infected with nitty heads than under the former system.

To cope with the problem of nitty heads, particularly girls, a practice was introduced by sending them, with their parent's consent, to first-aid posts to have their hair cut short, and the results were very satisfactory, but this practice was discontinued and in its stead the authorities adopted combing and shampooing the heads. The result of this method of cleansing has been quite good.

There are, however, parents who object to their children having any form of treatment, and in such cases it would appear that some form of compulsion is necessary.

The number of children inspected in schools during the year was 54,664, of whom 17,673 were infested or infected with vermin and 481 were dirty or had fleas.

Dirty Houses.—During the year 49,348 visits were paid to houses in rehousing schemes, and of that number 32,335 were clean, 15,306 were fairly clean, 1,298 were unsatisfactory, and 109 were dirty. The bedding was found dirty in 111 houses.

Visits numbering 811 were paid to houses in intermediate housing schemes, and 667 were clean, 114 were fairly clean, 25 were unsatisfactory, and 5 were dirty. The bedding in 3 houses was dirty.

A number of dirty houses and bedding was also discovered and dealt with during visits to the homes of verminous school children and while making house-to-house visitation in selected districts.

Factories Act, 1937.—During the year 248 new factories were established in the city, giving a total of 6,300 (4,008 mechanical and 2,292 non-mechanical) such premises on the register at the end of the term. This figure is considerably lower than that of the preceding year—a fact accounted for by the changed economic conditions bringing about the closing down or merging of many of the smaller businesses. Visits of inspection numbered 15,751, and in this connection 2,855 acts of neglect or default were brought to the notice of the responsible occupiers. Of these contraventions 820 related to inadequate means of light and ventilation, 591 to dirty condition of premises, 297 to choked or otherwise defective sanitary fittings, 270 to insufficient and/or unsuitable sanitary accommodation, and the remainder to various nuisances of a minor character. Despite the prevailing difficulties in respect of material and labour for work of this nature, improvements of considerable importance, including the reconstruction and remodelling on modern lines of existing sanitary accommodation, were carried out. Occupiers have been ready to meet the requirements of the new statute when

called upon, and only in one instance did the necessity for recourse to legal proceedings arise. The case concerned the occupier of a factory employing 194 females, where the sanitary accommodation was insufficient. The necessary additional water closets having been provided, the case was withdrawn on payment of £3 3s. court expenses.

It can be added that the Act of 1937 and the Sanitary Accommodation Regulations of 1938 made under Section 7 of the Act have brought about a very marked advance in the conditions which previously obtained in factories, and this in face of the distracting influences of the demands of war during the intervening period.

Bakehouses.—There were 412—being 254 mechanical and 158 non-mechanical—bakehouses on the register at the end of the year, to which 2,006 visits of inspection were made. Irregularities found caused the service of 342 notices, of which 182 referred to dirty premises. In all cases the requirements of the department were promptly attended to. At 9 mechanical bakehouses additional sanitary accommodation was installed.

Home Work.—The homes of 149 registered outworkers were regularly inspected, and found to be maintained in a clean and otherwise satisfactory condition. Visits to these premises totalled 407.

Offices.—Office premises are dealt with under the Public Health (Scotland) Act, 1897. In this connection 2,653 inspections were made, and consequent upon intimations to occupiers the following improvements were effected, viz.:—Dirty premises cleansed, 32; light and ventilation of premises improved, 11; additional sanitary accommodation installed, 7; washing facilities provided, 1; choked or otherwise defective sanitary fittings cleared or repaired, 7; and other nuisances remedied, 14. No difficulty was experienced in having the required work carried out expeditiously.

Offensive Trades.—The volume of raw material usually dealt with in tallow melting and bone boiling establishments was considerably reduced owing to the fact that fewer animals were killed and, to some extent, by the Government's policy of centralising the abbatoirs in which animals could be killed. Transport difficulties, causing delay and sometimes rendering carcases or parts thereof unfit for human consumption, interfered considerably with the freshness of the raw material received in these businesses, so that great care had to be taken in the various processes of manufacture in order to avoid nuisance.

The chlorifying plants which have been installed in most bone boiling and tallow melting works for the treatment of effluvia have functioned satisfactorily.

An application was made to establish the business of soap boiling in a building situated in the back court of a tenement property, and was refused on the grounds that the premises were situated in a built-up area and of their proximity to dwelling-houses, some of which were only 16 feet distant.

The number of visits paid was 1,170, and 61 contraventions of the bye-laws were dealt with. The number of offensive trades on the register is 69.

Tents, Vans, etc., used for Human Habitation.—War conditions such as petrol restriction and black-out regulations have seriously affected the business of *bona fide* travelling showmen, with the result that many of them coming into the city have had to apply to the Local Authority for an extension of the permitted period they are normally allowed to remain in terms of the Bye-laws. These showmen are no longer in a position to follow their usual occupation and some have taken up war work or joined the fighting services, leaving their women-folks to live in their vans. Twenty-two applications were made, principally by showmen for an extension of the six months' period they are permitred to remain within the city, and these were granted by the Corporation.

The number of inspections made of tents, vans, etc., used for human habitation was 1,033, and the number of irregularities dealt with was only 7—a figure which reflects credit on the manner in which the majority of such vans are kept.

Shops Act, 1934.—The number of premises in the city falling within the category of this Act was estimated at the close of the year at 16,133, after making allowance for the many small shopkeepers who have had to close their doors in what, it is hoped, will prove only a temporary phase, on account of the numerous difficulties created by the prolongation of the war, and it is computed that 35,073 males and 39,842 females are employed therein.

During the six years the Act has been on the Statute Book a total of 45,458 visits have been made under its provisions by the inspectors of this department. Last year 4,002 inspections were recorded, following which sanitary conveniences were introduced into 8 shops, in 64 others defective conveniences were repaired, cleansing operations were carried out in 113 instances, and defective light and ventilation were improved in 60 shops.

Common Lodging-Houses.—There are now 29 common lodging-houses and 2 boarding-houses for seamen on the registers, and these have accommodation for 8,466 persons ; 980 visits were paid during the year, and 137 irregularities were found and remedied without resort to court proceedings.

Cleansing.—69,790 visits were paid in connection with the cleaning of dirty closes, stairs, etc., and 13,769 cards fixing the tenants' rotation of cleaning were served. In 32 cases court proceedings had to be resorted to, and fines totalling £11 8s. were imposed. The walls and ceilings of 5,535 closes and staircases were limewashed or painted. A large number of closes have been strengthened by strutting to permit of their use as air raid shelters, and in these cases limewashing or painting is not meantime insisted upon, but by arrangements with the owners or factors certain cleansing operations are carried out where necessary.

Sanitary Conveniences.—The number of water closets used in common by two or more tenants now number 31,237. Of these, 6,149 serve two tenants, 17,526 serve three tenants, 6,256 serve four tenants, and 1,306 serve five or more tenants. The number of pan privies is 123, of which 102 serve one tenant, 17 serve two tenants, 3 serve three tenants, and 1 serves four tenants. There are also 44 privy middens, 22 serving 1 tenant, 10 serving two tenants, 11 serving three tenants, and 1 serving five tenants. Houses without inside sinks and water supply total 290—144 of one apartment, 130 of two apartments, 15 of three apartments, and 1 of four apartments. Common ashpits number 856, and of these 9 serve two tenants, 17 serve three tenants, 14 serve four tenants, and 816 serve five or more tenants. The approximate number of houses fitted with baths is 118,763.

Disinfection.—The following table summarises the washings and disinfections carried out at Ruchill and Belvidere Disinfecting Stations during the year 1940 :—

	Belvidere.	Ruchill.	Total.
Number if washings	10,799	15,981	26,780
Average number per day	35·13	51·47	86·60
Articles washed and disinfected ...	345,315	496,257	841,572
Average number of articles per washing	32·0	31·0	31·4
Fuel consumed (tons)	742	591	1,333
Fuel used per article (lbs.)	4·94	2·72	3·53
Soap and powder used per article (ozs.)	0·21	0·25	0·24
Disinfectant used per article (ozs.) ...	0·52	0·60	0·56
Sprayings	—	—	12,427
Books disinfected	—	—	1,346

APPENDIX.

TABLE I.—Glasgow, 1940.—ESTIMATED POPULATION in each Mun Ward, Acreage, and Persons per Acre.

Municipal Wards.	Population.			Acreage.	Persons per acre (including Institutions and Shipping)	Hous
	Without Institutions and Shipping.	Institutions and Shipping	Total.			Occupied.
1. Shettleston and Tollcross ...	44,834	325	45,159	1,473	31	11,711
2. Parkhead ...	35,905	1,128	37,033	883	42	9,622
3. Dalmarnock ...	29,049	30	29,079	288	101	8,074
4. Calton ...	22,918	1,767	24,685	333	74	6,068
5. Mile-End ...	17,127	—	17,127	191	90	4,739
6. Whitevale ...	18,395	447	18,842	176	107	5,165
7. Dennistoun ...	24,761	355	25,116	280	90	7,147
8. Provan ...	43,098	690	43,788	2,935	15	11,636
9. Cowlairs ...	20,388	1,508	21,896	456	48	6,232
10. Springburn ...	23,084	3,159	26,243	4,741	5	6,117
11. Townhead ...	22,332	968	23,300	175	133	6,029
12. Exchange ...	11,426	2,068	13,494	289	47	3,206
13. Blythswood ...	8,861	2,118	10,979	242	45	2,290
14. Anderston ...	20,553	1,806	22,359	422	53	5,669
15. Sandyford ...	15,761	490	16,251	152	107	4,030
16. Park	19,041	410	19,451	272	72	5,430
17. Cowcaddens ...	28,430	753	29,183	488	60	7,850
18. Woodside ...	28,295	855	29,150	170	171	8,325
19. Ruchill ...	49,069	1,438	50,507	2,105	24	12,172
20. North Kelvin	19,198	65	19,263	146	132	5,930
21. Maryhill ...	25,565	2,457	28,022	2,210	13	6,989
22. Kelvinside ...	24,124	1,036	25,160	1,127	22	8,133
23. Partick (East)	23,728	877	24,605	268	92	6,606
24. ,, (West)	20,927	166	21,093	357	59	6,499
25. Whiteinch ...	30,972	722	31,694	1,266	25	9,010
26. Hutchesontown	33,515	18	33,533	387	87	9,630
27. Gorbals ...	38,224	802	39,026	252	155	9,777
28. Kingston ...	24,946	345	25,291	285	89	6,334
29. Kinning Park	30,514	390	30,904	379	82	8,427
30. Govan ...	34,848	439	35,287	529	67	9,023
31. Fairfield ...	29,926	1,636	31,562	1,403	22	8,186
32. Pollokshields	40,983	2,560	43,543	4,837	9	12,060
33. Camphill ...	17,097	42	17,139	366	47	5,843
34. Pollokshaws	26,066	71	26,137	3,324	8	7,428
35. Govanhill ...	28,636	256	28,892	365	79	8,460
36. Langside ...	16,403	690	17,093	557	31	5,147
37. Cathcart ...	29,353	44	29,397	2,949	10	9,482
38. Yoker and Knightswood	33,866	184	34,050	2,647	13	9,569
Civilian Population	1,012,218	33,115	1,045,333	39,725	26	284,045
Inc. Men on Service	—	—	1,098,655			

ABLE II.—Glasgow.—Linings granted by Dean of Guild Court in Years from 1919 to 1940 in respect of Houses.

ar ending st August.	Number of Apartments.						Total.
	1.	2.	3.	4.	5.	6.	
19-20 (Annual Average)	—	6	692	246	107	29	1,080
21-25 (do	—	308	638	400	234	51	1,631
26 ...	—	318	4,649	967	769	93	6,796
27 ...	—	228	2,889	1,209	802	55	5,183
28 ...	—	132	4,184	2,238	314	17	6,885
29 ...	—	570	1,656	1,024	124	82	3,456
30 ...	—	506	1,958	1,295	230	202	4,191
31 ...	—	122	2,220	1,900	38	26	4,306
32 ...	33	529	3,464	1,251	70	4	5,351
33 ...	—	270	1,845	3,162	337	23	5,637
34 ...	34	603	1,825	787	80	52	3,381
35 ...	—	220	2,082	792	128	9	3,231
36 ...	—	—	1,462	1,320	290	12	3,084
37 ...	—	2	687	847	301	34	1,871
38 ...	—	—	2,017	3,068	824	50	5,859
39 ...	—	—	2,159	3,324	717	2	6,202
40 ...	—	—	—	—	—	—	—

BLE III.—ABSTRACT of Meteorological Observations taken at Springburn Public Park.

Months. 1940.	Temperature.			Rainfall.		Sunshine.
	Highest Temp. in Shade.	Lowest Temp. in Shade.	Mean Temp.	No. of Days.	Amount Collected in inches.	Hours.
nuary ...	41	6	29·2	13	2·67	14·0
bruary ...	51	20	35·7	15	1·48	40·6
arch ...	58	23	40·3	21	4·96	79·2
pril	63	30	44·2	20	2·66	80·9
ay	74	36	53·8	10	1·61	174·5
ne	85	44	61·6	8	·78	255·8
ly	73	42	57·1	23	5·00	154·9
ugust ...	80	41	57·0	17	2·24	130·4
ptember ...	68	32	51·9	15	4·02	124·8
tober ...	60	33	47·2	22	5·01	25·1
ovember ...	52	28	41·9	25	4·77	20·6
ecember ...	53	25	38·0	21	4·32	10·6
30	79	20	47·7	234	42·94	1,022
31	73	19	46·5	251	43·06	1,078
32	83	25	47·3	223	42·98	1,126
33	87	20	48·4	203	29·17	1,255
34	86	24	48·5	248	39·98	1,186
35	80	15	47·2	230	43·44	1,211
36	80	17	47·2	230	40·85	1,076
37	80	15	47·0	212	31·66	1,183
38	76	20	48·1	242	49·76	1,174
39	88	18	47·6	212	38·41	1,177
40	85	6	46·5	210	39·52	1,111

TABLE IV.—Glasgow.—BIRTHS, DEATHS and RATES per Million in the Year 1940.

Municipal Wards.	Births. 1940.	Birth-rate 1940.	Illegitimate Births. 1940.	Deaths. 1940.	Death rate 194
1. Shettleston and Tollcross ...	899	19,047	31	692	15,4
2. Parkhead	797	21,086	35	640	17,8
3. Dalmarnock	801	26,194	27	526	18,1
4. Calton	625	25,906	51	477	20,8
5. Mile-End	456	25,292	25	320	18,6
6. Whitevale	447	23,084	26	331	17,9
7. Dennistoun	385	14,770	18	386	15,5
8. Provan	949	20,917	36	643	14,9
9. Cowlairs	446	20,781	22	283	13,8
10. Springburn	452	18,601	26	313	13,5
11. Townhead	596	25,353	47	422	18,8
12. Exchange	317	26,355	42	267	23,3
13. Blythswood	194	20,797	34	202	22,7
14. Anderston	519	23,987	40	361	17,5
15. Sandyford	315	18,986	28	270	17,1
16. Park	275	13,719	36	365	19,1
17. Cowcaddens	806	26,931	57	577	20,2
18. Woodside	691	23,198	51	529	18,6
19. Ruchill	918	17,772	56	714	14,5
20. North Kelvin	376	18,605	13	325	16,9
21. Maryhill	508	18,876	20	387	15,1
22. Kelvinside	210	8,269	15	336	13,9
23. Partick (East)	485	19,417	33	409	17,2
24. Partick (West)	383	23,525	11	330	15,7
25. Whiteinch	513	15,734	16	504	16,2
26. Hutchesontown	889	25,198	35	508	15,1
27. Gorbals	1,124	27,934	109	770	20,1
28. Kingston	693	26,389	54	445	17,8
29. Kinning Park	802	24,968	46	530	17,3
30. Govan	914	24,915	43	594	17,(
31. Fairfield	509	16,158	9	436	14,3
32. Pollokshields	515	11,937	21	601	14,(
33. Camphill	217	12,056	7	275	16,(
34. Pollokshaws	394	14,359	16	382	14,(
35. Govanhill	473	15,691	14	469	16,3
36. Langside	193	11,177	10	294	17,3
37. Cathcart	325	10,518	15	442	15,(
38. Yoker and Knightswood ...	504	14,137	19	372	10,(
Institutions, &c.	50	—	11	836	–
Harbour	—	—	—	40	–
City	20,965	19,081	1,205	17,603	16,(

BLE V.—GLASGOW.—DEATHS AND DEATH-RATES *per Million* FROM DIFFERENT CAUSES, FOR THE YEAR 1940, AND CORRESPONDING RATES FOR 1939 AND 1938.

CAUSE OF DEATH.	DEATHS. 1940.	ANNUAL DEATH-RATE PER MILLION.		
		1940.	1939.	1938.
1. Typhoid and Paratyphoid Fevers	6	6	4	4
2. Cerebro-Spinal Fever	93	89	17	34
3. Scarlet Fever	10	10	10	26
4. Whooping Cough	20	19	133	78
5. Diphtheria	226	216	144	117
6. Erysipelas	12	11	12	20
7. Tuberculosis of Respiratory System	1,182	1,131	861	851
8. Tubercular Meningitis	193	185	136	133
9. Abdominal Tuberculosis	20	19	27	26
0. Other Tuberculous Diseases ...	117	112	62	83
1. Syphilitic Disease	93	89	*	*
2. Influenza	451	431	182	76
3. Measles	97	93	2	228
4. Acute Poliomyelitis and Polio-encephalitis	2	2	—	—
5. Acute Infectious Encephalitis ...	22	21	*	*
6. Cancer—All forms	1,770	1,693	1,427	1,487
7. Diabetes	204	195	140	134
8. Intra-cranial Vascular Lesions ...	1,332	1,274	*	*
9. Other Nervous Diseases	352	337	*	*
0. Heart Disease	4,319	4,131	3,011	2,733
1. Other Diseases of Circulatory System	337	322	*	*
2. Bronchitis	711	680	341	309
3. Pneumonia	1,251	1,197	768	1,027
4. Other Respiratory Diseases ...	213	204	136	128
5. Ulceration of the Stomach and the Duodenum	140	134	*	*
6. Diarrhoea (under 2 years) ...	307	294	287	270
7. Appendicitis	57	55	57	74
8. Other Digestive Diseases... ...	368	352	*	*
9. Nephritis	349	334	293	304
0. Puerperal and Post-abortive Sepsis	39	37	*	*
1. Other Maternal Causes	66	63	*	*
2. Premature Birth	440	421	*	*
3. Congenital Malformations, Birth Injury, Infantile Diseases ...	414	396		
4. Suicide, Road Traffic Accidents and other Violent Causes ...	880	842	*	*
5. All other Causes	1,510	1,445	*	*
ALL CAUSES	17,603	16,840	13,301	13,314

** Comparison not possible owing to alteration made in Rules of International Classification of Causes of Death.*

TABLE VI.—Glasgow, 1940.—DEATHS

CAUSE OF DEATH.	MALES.												
	−1	−2	−5	−10	−15	−20	−25	−35	−45	−55	−65	−75	75+
. Typhoid & Paratyphoid Fevers	—	—	—	—	—	—	1	1	2	1	—	—	—
. Cerebro-spinal Fever	18	8	11	1	1	—	2	3	4	3	4	—	—
. Scarlet Fever	2	—	1	1	1	—	—	—	—	—	—	—	—
. Whooping Cough	6	3	3	—	—	—	—	—	—	—	—	—	—
. Diphtheria	3	7	44	30	3	—	1	1	—	1	1	—	—
. Erysipelas	1	—	—	—	—	—	—	—	1	1	1	—	2
. Tuberculosis of Respiratory System	4	5	8	3	5	60	78	148	135	119	74	21	4
. Tubercular Meningitis	8	11	22	8	12	12	3	3	2	—	1	—	—
. Abdominal Tuberculosis ...	1	1	—	—	1	1	—	1	—	—	—	1	—
. Other Tuberculous Disease ...	2	2	5	4	3	13	5	4	3	3	4	2	1
. Syphilitic Disease	1	—	—	—	—	—	—	2	11	22	18	19	2
. Influenza	11	2	3	2	1	2	2	5	22	49	43	52	39
. Measles	24	19	4	—	—	—	—	—	1	—	—	—	—
. Acute Poliomyelitis and Polio-encephalitis	—	—	—	—	—	—	—	—	1	—	1	—	—
. Acute Infectious Encephalitis...	—	—	—	—	—	—	—	3	1	1	1	1	—
. Cancer—all forms	—	1	—	2	1	3	2	12	62	122	244	326	98
. Diabetes	—	—	—	—	1	1	—	1	3	4	10	16	11
. Intra-cranial Vascular Lesions	—	1	—	—	1	—	—	3	13	37	142	239	174
. Other Nervous Diseases ...	53	10	9	3	4	2	2	21	16	16	22	31	6
. Heart Disease	2	—	2	—	7	11	14	22	72	280	532	791	566
. Other Diseases of Circulatory System	2	—	—	—	—	—	—	3	3	10	34	68	53
. Bronchitis	37	4	—	2	—	—	1	5	25	61	72	89	85
. Pneumonia	263	58	28	—	2	8	6	16	54	72	91	80	36
. Other Respiratory Diseases ...	3	—	1	1	—	2	3	4	12	17	28	26	22
. Ulceration of the Stomach and the Duodenum	—	—	—	—	—	4	—	6	21	29	31	19	2
. Diarrhoea (under 2 years) ...	158	18	—	—	—	—	—	—	—	—	—	—	—
. Appendicitis	—	—	2	5	5	2	2	3	5	5	5	6	1
. Other Digestive Diseases ...	11	3	8	2	2	4	—	3	14	26	54	40	17
. Nephritis	—	—	1	1	—	2	1	9	13	19	34	54	31
. Puerperal and Post-abortive Sepsis	—	—	—	—	—	—	—	—	—	—	—	—	—
. Other Maternal Causes ...	—	—	—	—	—	—	—	—	—	—	—	—	—
. Premature Birth	249	—	—	—	—	—	—	—	—	—	—	—	—
. Congenital Malformations, Birth Injury, Infantile Disease ...	228	2	—	2	—	1	—	1	—	—	—	—	—
. Suicide, Road Traffic Accidents and other Violent Causes ...	10	4	25	35	19	35	15	67	74	77	119	106	47
. All other Causes	25	5	11	5	10	10	13	19	24	65	136	182	199
All Causes	1122	164	188	107	79	173	151	366	594	1040	1702	2169	1396

T CAUSES IN SEXES AND AT SEVERAL AGE-PERIODS.

E OF DEATH.	FEMALES.													Total Females.	Total Both Sexes.
	−1	−2	−5	−10	−15	−20	−25	−35	−45	−55	−65	−75	75+		
& Paratyphoid Fevers	—	—	—	—	—	—	—	1	—	—	—	—	—	1	6
spinal Fever	11	4	12	1	—	2	1	—	1	5	1	—	—	38	93
Fever	1	3	—	1	—	—	—	—	—	—	—	—	—	5	10
g Cough	6	—	2	—	—	—	—	—	—	—	—	—	—	8	20
ria	3	12	67	42	7	2	—	1	—	1	—	—	—	135	226
as	—	—	—	—	—	—	—	—	1	—	1	3	1	6	12
losis of Respiratory															
em	3	4	5	1	13	94	123	146	72	30	18	7	2	518	1182
lar Meningitis	5	10	20	12	18	26	9	6	2	1	2	—	—	111	193
ial Tuberculosis ...	1	1	1	—	2	3	1	4	1	—	—	—	—	14	20
uberculous Disease ...	2	3	7	6	8	12	6	8	3	1	2	7	1	66	117
c Disease	2	—	—	—	—	—	1	—	3	4	6	2	—	18	93
a	9	5	1	—	—	2	2	6	18	18	38	51	68	218	451
... ...	18	19	10	1	—	—	1	—	—	—	—	—	—	49	97
Poliomyelitis and Polio-															
phalitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
nfectious Encephalitis...	—	—	—	—	—	—	1	1	3	6	3	1	—	15	22
-all forms	—	—	4	1	—	1	3	19	89	150	246	234	150	897	1770
s	—	—	—	—	3	2	—	3	4	10	48	63	24	157	204
anial Vascular Lesions	—	1	1	—	—	—	4	6	13	49	161	244	243	722	1332
Nervous Diseases ...	36	3	7	2	2	6	6	12	22	14	16	23	8	157	352
Disease	1	—	1	4	3	13	19	43	81	165	387	634	669	220	4319
Diseases of Circulatory															
em	—	—	—	1	—	—	1	1	1	11	22	56	71	164	337
tis	34	2	—	1	2	1	1	3	14	23	33	80	136	330	711
nia	197	47	24	5	1	1	5	18	17	34	49	63	76	537	1251
Respiratory Diseases ...	7	1	2	—	—	1	4	5	10	6	16	13	29	94	213
on of the Stomach and															
Duodenum	1	—	—	1	—	—	—	—	4	8	6	6	2	28	140
ea (under 2 years) ...	117	14	—	—	—	—	—	—	—	—	—	—	—	131	307
icitis	—	—	—	2	5	2	1	1	—	1	1	2	1	16	57
Digestive Diseases ...	6	—	5	2	5	1	2	7	13	18	46	44	35	184	368
is	—	1	2	4	2	4	2	10	19	28	43	48	21	184	349
al and Post-abortive															
sis	—	—	—	—	—	1	3	17	18	—	—	—	—	39	39
Maternal Causes ...	—	—	—	—	—	3	11	37	12	3	—	—	—	66	66
ure Birth	191	—	—	—	—	—	—	—	—	—	—	—	—	191	440
tal Malformations, Birth															
ury, Infantile Disease ...	175	3	1	1	—	—	—	—	—	—	—	—	—	180	414
, Road Traffic Accidents															
other Violent Causes ...	7	3	11	20	2	4	5	16	18	25	32	48	55	246	880
er Causes	28	7	5	12	11	14	6	45	46	81	101	157	293	806	1510
ALL CAUSES	861	143	188	120	84	195	218	416	485	692	1278	1786	1885	8351	17603

TABLE VII.—Glasgow.—DEATHS under 1 Year and Death-rates per 1 Births in each Municipal Ward, for the Year 1940.

Municipal Wards.	Deaths —1 Year.	Death Rate per 1,000 Births.		
	1940.	1940.	1939.	19
1. Shettleston and Tollcross	74	82	91	
2. Parkhead	86	108	85	
3. Dalmarnock	99	124	88	1
4. Calton	74	118	109	1
5. Mile-End	49	107	87	1
6. Whitevale	42	94	137	
7. Dennistoun	35	91	41	
8. Provan	85	90	59	
9. Cowlairs	33	74	62	
10. Springburn	32	71	78	
11. Townhead	65	109	80	
12. Exchange	48	151	140	1
13. Blythswood	17	88	141	1
14. Anderston	61	117	97	
15. Sandyford	28	89	59	1
16. Park	16	58	49	
17. Cowcaddens	98	121	110	
18. Woodside	68	98	92	1
19. Ruchill	74	81	73	
20. North Kelvin	31	82	48	
21. Maryhill	44	87	68	
22. Kelvinside	13	62	38	
23. Partick (East)	48	99	54	
24. Partick (West)	31	81	53	
25. Whiteinch	39	76	64	
26. Hutchesontown	86	97	86	
27. Gorbals	148	132	102	1
28. Kingston	65	94	99	
29. Kinning Park	77	96	83	
30. Govan	97	106	90	1
31. Fairfield	29	57	44	
32. Pollokshields	33	64	66	
33. Camphill	9	41	32	
34. Pollokshaws	26	66	69	
35. Govanhill	44	93	53	
36. Langside	12	62	53	
37. Cathcart	18	55	44	
38. Yoker and Knightswood	31	62	50	
Institutions	18	—	—	-
Harbour	—	—	—	-
City	1,983	95	80	

Cause of Death.	Males. Age in Months.						Females. Age in Months.						Total — 1 year. Both Sexes.
	— 1	— 3	— 6	— 9	— 12	Total.	— 1	— 3	— 6	— 9	— 12	Total.	
I Congenital Malformations	29	14	6	1	1	51	33	5	5	—	5	48	99
II. Diseases of early Infancy—													
(*a*) Congenital Debility, Sclerema, and Icterus	53	18	7	2	—	80	38	16	8	2	—	64	144
(*b*) Premature Birth	231	15	2	—	1	249	174	13	4	—	—	191	440
(*c*) Injury at Birth	60	—	—	—	—	60	22	1	—	—	—	23	83
(*d*) Atelectasis	21	3	—	—	—	24	19	4	7	—	—	30	54
(*e*) Others	11	2	—	—	—	13	10	—	—	—	—	10	23
III. Diseases of Respiratory System ...	25	79	93	70	36	303	33	58	72	42	33	238	541
IV. Diseases of Digestive System—													
(*a*) Diarrhoeal	18	51	56	17	16	158	11	35	38	23	10	117	275
(*b*) Others	1	3	4	3	—	11	1	1	1	1	3	7	18
V. Diseases of Nervous System ...	7	15	26	4	1	53	4	13	13	3	3	36	89
VI. Tuberculous Diseases—													
(*a*) Pulmonary Tuberculosis	—	—	2	—	2	4	—	—	1	1	1	3	7
(*b*) Tuberculous Meningitis	—	—	—	2	6	8	—	—	—	1	4	5	13
(*c*) Abdominal Tuberculosis	—	—	1	—	—	1	—	—	1	—	—	1	2
(*d*) Other Forms	—	—	2	—	—	2	—	—	2	—	—	2	4
VII. Infectious Diseases—													
(*a*) Measles	—	—	3	13	8	24	—	1	2	7	8	18	42
(*b*) Scarlet Fever	—	—	—	—	2	2	—	—	—	—	1	1	3
(*c*) Whooping Cough	1	2	1	1	1	6	—	1	1	—	4	6	12
(*d*) Diphtheria	—	—	—	1	2	3	—	—	1	1	1	3	6
(*e*) Erysipelas	—	1	—	—	—	1	—	—	—	—	—	—	1
(*f*) Cerebro-spinal Fever	—	1	7	6	4	18	1	3	6	—	1	11	29
(*g*) Varicella	—	—	—	—	—	—	—	—	—	—	—	—	—
(*h*) Typhoid and Paratyphoid Fevers	—	—	—	—	—	—	—	—	—	—	—	—	—
VIII. Syphilis	—	1	—	—	—	1	1	—	1	—	—	2	3
IX. Overlaying	1	—	1	—	—	2	—	—	—	—	—	—	2
X. Other Violence	2	1	2	3	—	8	5	—	2	—	—	7	15
XI. All other Causes	14	4	8	13	1	40	5	8	15	7	3	38	78
Totals	474	210	221	136	81	1122	357	159	180	88	77	861	1983

Table IX.— Cases of Infectious Disease Registered in Each Month in 1940.

	Month.												Year.	
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Hosp.	Home
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric, including Paratyphoid Fever	4	1	255	47	5	1	5	16	8	2	5	1	344	6
Continued and Undefined Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever	35	32	31	61	45	24	24	38	32	38	35	24	404	15
Puerperal Pyrexia	22	28	24	29	25	23	13	8	27	17	15	24	211	44
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	114	85	107	139	121	120	116	134	149	259	260	270	1,432	442
Diphtheria and Membranous Croup	234	246	362	373	429	366	342	497	525	611	600	605	5,163	27
Erysipelas	43	49	48	57	60	51	52	46	61	68	57	64	343	313
Cerebro-spinal Fever	20	66	78	68	54	28	31	29	19	13	19	32	446	11
Ophthalmia Neonatorum	36	62	65	63	54	58	53	38	57	48	49	34	58	559
Trachoma	1	—	1	1	1	—	—	—	—	1	1	1	3	4
Acute Encephalitis Lethargica	—	—	—	—	1	1	—	1	—	—	—	—	2	1
Acute Polio-Encephalitis	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Acute Poliomyelitis	—	—	—	—	1	—	3	5	4	9	7	4	28	5
Acute Primary Pneumonia	1,265	961	530	365	479	275	198	192	175	283	300	493	3,224	2,292
Acute Influenzal Pneumonia	130	100	28	5	9	4	3	3	1	7	6	12	105	203
Malaria	1	1	—	—	1	—	4	28	5	4	2	4	43	7
Dysentery	11	15	14	19	23	25	26	45	82	55	28	21	231	133
Pulmonary Tuberculosis	136	128	185	219	191	147	175	173	137	128	126	163	1,120	788
Tuberculosis	39	56	63	68	70	60	55	55	29	58	52	64	284	385
Measles	10	44	45	406	2,523	4,435	1,655	629	571	289	230	191	1,131	9,897
German Measles	21	72	72	121	162	77	55	20	8	14	19	12	309	344
Whooping Cough	8	10	7	18	39	21	9	19	40	113	268	323	44	831
Chickenpox	30	15	11	27	169	205	79	45	184	357	517	408	131	1,916
Total	2,160	1,971	1,926	2,086	4,462	5,921	2,898	2,021	2,114	2,374	2,596	2,751	33,280	
Hospital	1,225	1,210	1,446	1,321	1,322	1,058	1,185	1,264	1,128	1,268	1,245	1,384	15,056	—
Home	935	761	480	765	3,140	4,863	1,713	757	986	1,106	1,351	1,367	—	18,224
Add * Others													314	16
Altered Diagnosis													1,674	2

TABLE X.—Glasgow, 1939 and 1940.—Cases of Infectious Diseases Registered, Number Treated in Hospital, and Case Rates per Million.

	1940.					1939.	Case Rates.	
	Fever Hospitals and Sanatoria.	Corporation General Hospitals.	Other Institutions.	Home.	Total.	Total.	1939.	1940.
A.—Notifiable—								
Typhus Fever	—	—	—	—	—	—	—	—
Enteric Fever	9	—	—	2	11	11	10	10
Paratyphoid B	335	—	—	4	339	48	42	309
Continued and Undefined Fever	—	—	—	—	—	6	5	—
Puerperal Fever	358	21	25	15	419	435	385	381
Puerperal Pyrexia ...	88	52	71	44	255	302	268	232
Smallpox	—	—	—	—	—	—	—	—
Scarlet Fever	1,430	—	2	442	1,874	2,962	2,625	1,706
Diphtheria and Membranous Croup	5,161	—	2	27	5,190	3,144	2,786	4,724
Erysipelas	336	2	5	313	656	834	739	597
Cholera	—	—	—	—	—	—	—	—
Cerebro-spinal Fever ...	429	4	13	11	457	81	72	416
Ophthalmia Neonatorum	46	4	8	559	617	713	632	562
Trachoma	—	3	—	4	7	10	9	6
Acute and Chronic Enceph. Lethargica	—	2	—	1	3	5	4	3
Acute Polio-Encephalitis	—	—	—	1	1	—	—	1
Acute Poliomyelitis ...	27	—	1	5	33	4	4	30
Acute Primary Pneumonia	2,664	301	259	2,292	5,516	3 520	3,119	5,021
Acute Influenzal Pneumonia	81	11	7	203	308	228	202	280
Malaria	35	6	2	7	50	11	10	46
Dysentery	123	92	16	133	364	163	144	331
Infective Jaundice ...	—	—	1	—	1	1	1	1
Anthrax	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis	1,120	—	—	788	1,908	1,574	1,395	1,737
Other Forms of Tuberculosis	284	—	—	385	669	561	497	609
B.—Not Notifiable—								
Measles	1,048	79	4	9,897	11,028	1,462	1,296	10,038
German Measles	299	2	8	344	653	3,792	3,360	594
Whooping Cough ...	44	—	—	831	875	6,311	5,592	796
Chickenpox	127	4	—	1,916	2,047	3,860	3,421	1,863
Mumps	286	—	2	—	288	7	6	262
Pemphigus Neonatorum	25	—	—	16	41	20	18	37
Totals	14,361	583	426	18 240	33,610	30,065	26,642	30.592
Notified, but diagnosis altered to Non-Infectious Diseases ...	1,670	4	—	2	1,676	1,610	—	1,525
Total Registered	16,031	587	426	18,242	35,286	31,675	—	32,117

* Where patients suffer from two or more diseases, each disease is reckoned as a case.

Apart from cases of pneumonia admitted to Corporation General Hospitals and Voluntary Institutions in times of pressure; cases of puerperal fever, puerperal pyrexia, and ophthalmia neonatorum occurring in other than Fever Hospitals and allowed to remain; and cases of trachoma treated in Stobhill Hospital; the cases shown under the headings "Corporation General Hospitals" and "Other Institutions" are, for the most part, accidental.

PART II.

FEVER AND TUBERCULOSIS HOSPITALS.

Following the practice of last year, a brief report of the work of the Hospitals for Infectious Diseases is submitted. In the tabular statement at the end of the report the statistics of the various hospitals are combined. Two features are outstanding:—

(1) Exceptional prevalence of diphtheria.

(2) Marked increase in the incidence of cerebro-spinal fever.

Fortunately, coincident with the prevalence of diphtheria there was a great diminution in the incidence of scarlet fever. The total number of cases of that disease dealt with was the lowest for many years and was little more than one-fourth of the number of diphtheria patients.

While the total admissions to the hospital do not vary very greatly from year to year, recently the nature of the cases dealt with has shown considerable change. More and more accommodation has been required for diphtheria, and this year provision had also to be made for increased prevalence of cerebro-spinal fever, the number of the latter being roughly four times that of pre-war non-epidemic years. There was also an increase in the enteric fever group. These considerations, involving the rapid changeover of wards usually earmarked and equipped for one disease to accommodate another, created administrative problems and necessitated an increase in the nurse to patient ratio. While no appreciable shortage of nurses was experienced generally, certain hospitals had difficulty in retaining full staffs, and on occasion were short to the extent of approximately five per cent. Every effort, including extensive advertising, was made to attract suitable applicants to the service, but results were somewhat disappointing, and generally some difficulty was experienced in obtaining a sufficient number of suitable candidates. Hitherto eighteen years was regarded as the lowest age for the acceptance of probationers, but during the year a proportion of candidates have been accepted at seventeen years of age.

Scarlet Fever.—The number of hospitalised cases of scarlet fever was remarkably small—in all 1,334. Not for many years has the figure been so low. This most unusual experience was not due to special limitation of hospital admissions, as the total number of cases registered was only 1,874, compared with 2,962 in 1939 and 4,047 in 1938.

The disease has for some years been of mild type. Nine deaths occurred, giving a mortality rate of 0·6 per cent. The great majority of the cases were of simple type, but a few septic and still fewer toxic cases were met with. As hitherto, serum treatment was pursued in all but the mild cases, provided the patients were received sufficiently early to benefit from it. Many were received late, at a stage when confirmation of diagnosis was difficult and when it was useless to pursue serum therapy. Chemo-therapy was of value in septic cases and in septic complications, but except in these conditions was not found to exert any appreciable influence on the normal course of the disease.

Diphtheria.—During the year 1939, when 3,224 cases were treated in hospital, diphtheria attained the highest case rate for twenty-five years. In 1940 no less than 4,803 cases were treated to a conclusion. Never before had provision to be made for such a large number, amounting to almost one-third of the total turnover. There were 227 deaths, equivalent to a mortality rate of 4·7 per cent., which is slightly less than in the previous year. During the latter part of the year many patients with severe clinical manifestations were received, and at this period the incidence of Gravis type infections was approximately 50 per cent. Experience in Glasgow does not always relate severe clinical lesions with Gravis type; many are "Intermediate" and a few are "Mitis." The latter generally respond very rapidly to serum treatment. In patients recovered the average residence in hospital was fifty days; in fatal cases ten days. In 419 cases admitted as diphtheria the diagnosis was revised. A noteworthy feature was the low incidence of laryngeal infections.

Lower mortality is not necessarily a true indication that the type of disease is less severe; on the contrary, clinical experience during the year rather suggests the reverse.

Pneumonia.—2,571 cases of pneumonia were treated to a conclusion, a figure slightly in excess of that of the previous year. Of these, 2,485 were classified as acute primary pneumonia and 86 as acute influenzal pneumonia. Among the former the deaths numbered 378, in the latter 23. The mortality rate over all was 15·6 per cent. The total number of cases of penumonia registered was 5,824, so that approximately 44 per cent. received treatment in the Fever Hospital.

Combining a series of typed cases from each of the larger hospitals the following figures were obtained. The cases included both sexes and all age groups between 10 and 70 years. The diagnosis of lobar pneumonia was confirmed in all, and the mortality rate in the series was approximately 10 per cent.

Type.	Cases.	Deaths.	Mortality.
I.	64	2	3·1 per cent.
II.	149	14	9·4 ,,
III.	41	7	17·0 ,,
IV.—XXXII. ...	137	16	11·7 ,,
Unclassified ...	286	37	12·9 ,,

Treatment was on the same lines as last year. The great majority of the patients received either Sulphapyridine or Sulphathiazole. In a small series of type II cases at Ruchill Hospital chemo-therapy supplemented by specific rabbit serum was viewed favourably.

Puerperal Fever.—233 patients were treated in the Puerperal wards at Belvidere, and one in Ruchill Hospital. In all 6 deaths occurred; 5 were due to Puerperal Sepsis, and 1, which appears in the Puerperal Pyrexia group, was due to Tuberculous Meningitis. 166 were classified as Puerperal Fever, and 68 as Puerperal Pyrexia. The mortality in the former was 3 per cent., in the latter 1·5 per cent. 71 cases of Puerperal Sepsis followed full-time pregnancy; the remaining 95 were associated with abortions. 19 of this group were already afebrile when admitted. In the 68 cases of Puerperal Pyrexia the causal lesions were :

Mastitis	35
Constipation	16
Pyuria and/or Bacilluria	7
Lobar Pneumonia	5
Bronchitis	4
Tuberculous Meningitis	1

In the Puerperal Fever group the following complications were encountered :—

Parametritis	17
Pelvic Peritonitis	4
Pyuria and/or Bacilluria	15
Phlegmasia-Alba Dolens	4
Septicaemia (Positive Blood Culture)	3
Osteomyelitis of Pubis	1

Operative Treatment.—Incision of Mastitis was necessary in 20 cases, dilatation and curettage in 23 cases, and laparotomy in 4; 50 general anaesthetics were given.

Chemo-therapy.—In most cases some form of chemo-therapy was employed. Sulphanilamide and Sulphapyridine were most frequently used. The newer preparation, Sulphathiazole, was found to be at least as effective, and was well tolerated. It appeared to be the only drug of the group which exerted any influence on Mastitis. Some early examples of this condition resolved without pus formation.

The mortality during the year was very low, but in assessing the influence of Chemo-therapy it should be borne in mind that for the last few years there has been a steady diminution in the number of the more severe infections.

Erysipelas.—For the most part Erysipelas was dealt with in the wards of Knightswood and Ruchill Hospitals. The number treated was 343. Only 8 deaths occurred, giving a mortality rate of 2·3 per cent., which is even lower than that of last year and is the lowest ever recorded. Chemo-therapy in the form of Rubiazol or Sulphanilamide was used routine. Both drugs yielded equally favourable response, the former being the better tolerated. The average residence of cases discharged well was 18 days.

Enterica Group and Dysentery.—In the first quarter of the year there was a considerable outbreak of Paratyphoid Fever. It had all the characteristics of an epidemic, having food as its source—this aspect is dealt with elsewhere. There were 328 cases with almost equal sex distribution ; 5 deaths occurred, representing a mortality rate of 1·5 per cent.

In addition 12 cases of Typhosus infection were treated — all recovered. Both the Paratyphoid and the Typhoid cases were definitely of mild type and few complications were met with.

130 examples of Bacillary Dysentery received treatment in the hospitals. Among them there were 6 deaths, giving a mortality rate of 4.6 per cent.

Cerebro-spinal Fever.—No less than 420 confirmed cases of Cerebro-spinal Fever were treated to a conclusion. In addition many cases were received in which the diagnosis was revised. The above figure represents a very large increase, and is about four times the average number of cases received in non-epidemic years. An appreciable number were from units of His Majesty's Forces. Approximately 15 per cent. of the total were of a very severe nature and a few of fulminant type were encountered. The mortality rate, 20·7 per cent., was slightly higher than last year. The disease began in the early part of the year, attained its usual seasonal maximum in the second quarter, but it continued to be more or less prevalent throughout the year. Chemo-therapy in one form or another was employed in all cases. Lumbar punctures were confined to diagnostic or progress punctures. Serum was rarely administered.

Whooping-Cough.—Only 36 patients with Whooping-Cough were dealt with ; 5 of these died, equivalent to a mortality rate of 13·9 per cent.

Measles.—Measles was epidemic during the year, but never attained a high incidence. The disease was definitely milder than usual. In a total of 994 cases 46 deaths occurred, giving a mortality rate of 4·6 per cent.

Rubella.—303 examples of this mild infection were treated, a considerable number of them from His Majesty's Forces. All recovered.

Chickenpox.—112 cases of Chickenpox were treated, and all were discharged well.

Parotitis.—135 cases of this condition were dealt with ; 131 were males and 4 females. A large number of the male patients were members of His Majesty's Forces, and the incidence of Orchitis among these patients was high.

Venereal Disease.—From 1936 until 1939 the number of male patients hospitalised steadily declined, but 1940 provided a substantial increase. The figures are :—

1936	1937	1938	1939	1940
208	177	131	114	189

The increase was chiefly in shipping cases, and many alien patients were received. There were three deaths, one due to Septicaemia following Peri-urethral abscess, and two due to Syphilis and complications ; nine patients suffered from double infections. About two-fifths of the total were Gonorrhoea, and 8 patients were received suffering from conditions other than venereal disease. The following summary indicates the treatment pursued :—

Syphilis patients received injections of Novarsenobillon and Bisglucol ; Arsenical Dermatitis was treated with Sulphathiazole and Redoxon Tablets. Gonorrhoea was treated with Sulphapyridine Tablets.

FEVER HOSPITALS—Statement of Cases Treated According to Sex Data Based on Dismissals and Deaths for Year 1940.

	Admitted.		Dismissed.		Died.		M'tality	Av. Residence	Deaths	Ages. Dismissals & Deaths.			Altered	Ruchill.		Belvidere.		Knightswood.		Shieldhall.	
	M.	F.	M.	F.	M.	F.	per cent.	Dismiss.		—5	—15	15+	Diag-nosis.	Dis-missals.	Deaths	Dis-missals	Deaths	Dis-missals	Deaths	Dis-missals	Deaths
Typhus	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
Enteric Fever	6	6	6	6	—	—	—	61	—	—	4	8	30	6	—	6	—	—	—	—	—
Paratyphoid Fever	164	169	156	167	4	1	1·5	52	5	50	97	181	54	133	4	144	1	40	—	6	—
Continued and Undefined Fever	—	—	—	—	—	—	—	—	—	—	—	—	88	—	—	—	—	—	—	—	—
Puerperal Fever...	—	165	—	161	—	4	2·4	19	4	—	—	165	10	—	1	161	3	—	—	—	—
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	661	749	624	701	5	4	0·6	32	16	503	652	179	89	514	2	503	3	41	—	267	4
Diphtheria and Mem. Croup...	2384	2866	2048	2528	99	128	4·7	50	10	1411	2409	983	419	2218	87	1954	110	92	4	312	26
Erysipelas	173	172	170	165	4	4	2·3	18	21	21	10	312	41	147	1	2	—	185	7	1	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-spinal Fever	244	197	181	152	49	38	20·7	29	4	203	61	156	348	171	46	156	39	1	1	5	1
Trachoma	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Encephalitis Lethargica ...	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—
Acute Polioencephalitis ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Acute Poliomyclitis	15	11	12	6	1	—	5·3	59	16	9	10	—	6	14	1	4	—	—	—	—	—
Acute Primary Pneumonia ...	1617	823	1373	734	247	131	15·2	30	12	1117	271	1097	754	665	123	841	143	351	70	250	42
Acute Influenzal Pneumonia ...	59	24	46	17	16	7	26·7	26	7	9	4	73	35	23	8	22	9	13	6	5	—
Malaria	37	—	34	—	1	—	2·8	17	2	—	—	35	4	28	1	6	—	—	—	—	—
Dysentery	61	55	65	59	3	3	4·6	20	22	45	25	60	30	69	1	32	4	23	1	—	—
Relapsing Fever...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis ...	44	51	30	47	13	9	22·2	30	36	9	8	82	—	49	9	22	9	—	—	6	4
Other forms of Tuberculosis ...	56	82	2	2	55	78	97·1	10	9	41	43	53	—	4	59	—	68	—	1	—	5
Measles	507	508	482	466	19	27	4·6	26	10	795	109	90	54	405	17	505	29	33	—	5	—
German Measles...	161	143	158	144	—	1	0·3	9	3	15	69	219	15	92	—	148	—	58	—	4	1
Whooping-cough	20	20	14	17	3	2	13·9	40	4	32	4	—	4	14	4	10	—	4	1	3	—
Chicken-pox	66	49	61	51	—	—	—	31	—	44	55	13	3	3	—	109	—	—	—	—	—
Mumps	131	4	130	5	—	—	—	19	—	—	2	133	2	18	—	2	—	115	—	—	—
Venereal Diseases	196	—	186	—	3	—	1·6	29	8	—	—	189	—	—	—	186	3	—	—	—	—
Babies with Mothers	4	7	3	6	1	1	18·2	23	1	11	—	—	—	1	2	6	—	2	—	—	—
No apparent Disease	18	15	17	14	—	—	—	6	—	14	5	12	—	11	—	13	—	—	—	7	—
Others	730	591	681	554	46	45	6·9	22	13	468	281	577	—	645	51	546	37	24	1	20	2
Influenza	50	36	47	35	3	—	3·5	16	3	9	16	60	—	38	2	38	1	—	—	6	—
Puerperal Pyrexia	—	68	—	67	—	1	1·5	19	1	—	—	68	2	—	—	67	1	—	—	—	—
Impetigo	3	—	4	—	—	—	—	21	—	3	—	1	—	2	—	2	—	—	—	—	—
Mothers with Babies	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pemphigus Neonatorum ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unclassified (Staff)	2	107	2	107	—	1	0·9	14	6	—	—	110	—	16	1	30	—	63	—	—	—
Anthrax	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—
Air Raid Casualties	3	4	3	3	—	1	14·3	23	1	—	4	3	—	—	—	—	—	6	1	—	—
Evacuees	6	8	5	7	1	1	14·3	143	79	—	—	14	—	—	—	—	—	12	2	—	—
Total	7418	6930	6540	6221	573	487	7·6	36	11	4809	4139	4873	1993	5286	420	5515	460	1063	95	897	85
Phthisis	511	434	335	294	172	133	32·6	137	75	21	20	893	—	559	239	—	—	70	66	—	—

ROBROYSTON HOSPITAL.

The bare essentials of the past year's work are given in the attached report:—

Accommodation and Bed Distribution.—Until late in the year three pavilions were reserved for air raid casualties. The increase in notifiable tuberculosis occasioned the reopening in August of a pavilion for phthisis in females, and this was followed by the return to the Public Health Department of both remaining wards before the end of the year; one was, as usual, utilised for the treatment of pneumonia. During 1940 no part of the recently completed emergency hospital was called on for the treatment of patients.

Pulmonary Tuberculosis.—A greatly reduced number of patients was dismissed during 1940, and of the 156 patients 61 died. Particularly towards the end of the year a majority of patients were admitted with already advanced disease,but in 82 artificial pneumothorax was attempted. Of this total there were 25 patients in whom the operation was either an immediate failure or whose collapse was contra-selective or otherwise ineffective. Section of pleural adhesions was undertaken for 18 patients, and was technically and clinically successful in 11 instances. In many the adhesions were multiple and complex. Operations on the phrenic nerve numbered 12, and extrapleural pneumothorax was attempted in 5 patients, being technically successful in 2; it is yet early to assess the clinical result. Thoracoplastic operations of various types numbered 38, involving 25 patients.

Non-pulmonary Tuberculosis.—The appended table gives some idea of the scope of the work done:—

Site of Lesion.	Total.	Deaths.	Operations
Tuberculosis of Spine	42	11	7
Tuberculosis of Hip	12	1	5
Bones other than Spinal	7	—	2
Joints other than Hip	14	—	18
Genitourinary Tuberculosis	19	3	*49
Abdominal Tuberculosis	10	4	5
Tuberculosis of Lymphatic Glands ...	3	—	3
Multiple and Miscellaneous Lesions ...	10	5	—
Non-tuberculous Lesions and Observations	16	5	†30
	133	29	119

* Includes 25 cystoscopic examinations.

† Includes dental, ear, nose and throat, and staff patients.

Puerperal Sepsis and Pyrexia.—Below is given a synopsis of the patients dismissed or who died during the year :—

	Total.	Died.
(1) Puerperal sepsis following birth of a viable child ...	194	16
(2) Puerperal sepsis following birth of a non-viable child ...	86	6
(3) Patients not suffering from Puerperal sepsis (excluding abortions)	20	3
(4) Abortions (non-septic)	7	—

Death rate 1—Sepsis following birth of viable child... ...	8·25 per cent.
Death rate 2—Sepsis following birth of non-viable child ...	6·98 ,,
Combined death rate—All forms Puerperal sepsis	7·86

Commentary.—The very low death rate shown in the previous year has not been maintained, but compared to the years preceding 1939 it confirms the gradual fall then seen. The number of admissions has shown a decrease, but there was a marked increase in the number of gravely ill women, notably those suffering from septicaemia, 50 per cent. of whom died.

Sulphapyridine has been used throughout to the almost total exclusion of sulphonamide, as it was found to be more satisfactory in all types of infection met with during the year. Sulphathiazole was used in certain cases with special indications, with good results.

Pneumonia.—During 1940 there were discharged 170 patients who had been admitted following notification as suffering from pneumonia. In 129 the existence of either primary or secondary pneumonia was confirmed. The remaining 41 were classified as follows :—Bronchitis, 30 ; Tumour of Lung, 1 ; Measles, 2 ; Diphtheria, 1 ; Congestive Cardiac Failure, 2 ; Anterior Poliomyelitis, 1 ; Meningococcal Meningitis, 1 ; Acute Rhinitis, 3.

Complications were few, but pleural effusions occurred in 5 patients, of whom 1 required operative interference.

MEARNSKIRK HOSPITAL.

The evacuation of former patients and the opening of a large hutted annexe for the admission of Service patients and civilian casualties was followed by a gradual extension and diversification of the work of the hospital during 1940. In spite of this, the admission of tuberculous patients was continued, the turnover being more than half of that for pre-war years.

On 31st December, 1939, there were 176 tuberculous patients resident in hospital. During 1940 a further 361 patients were admitted, while 262 were dismissed or died in hospital, leaving 275 patients still in residence at 31st December, 1940. Almost two-thirds of the patients treated were suffering from pulmonary tuberculosis.

Of the 262 patients who left hospital during the year 168 completed the course of treatment prescribed and were dismissed with the disease healed or quiescent; 23 patients left at their own request or at the request of relatives, while 20 were transferred to other institutions. The remaining 51 patients died in hospital. Of the deaths, 37 occurred among patients with advanced pulmonary lesions. This figure represents a mortality rate of 23 per cent. in the group of 160 dismissed pulmonary cases. The average duration of residence for all cases was 274 days.

A table is appended showing the site of disease, the age and sex distribution, the general and local condition on admission and on dismissal of the patients dismissed during the year. With the exception of the pulmonary group, the numbers are too small to warrant separate or detailed consideration. The work of the main hospital departments may however be described briefly.

Plaster of Paris Work.—In the course of the year 302 plaster appliances were made. Of these 125 (including 9 jackets, 25 hip spicae, 88 leg splints, and 3 arm splints) were for tuberculous patients. In addition to these, 19 casts were constructed for the making of certalmid or celluloid splints. Bohler's walking irons were fitted in 30 cases.

Splint Department.—The work of this department included the making of 94 new splints. Boots to the number of 109 were altered as required. Crutches were supplied to 80 patients, and Bohler's walking

irons were made and fitted in 30 cases. In all the department turned out 700 new jobs and effected 379 major repairs.

Surgical Operations.—Of 192 major operations undertaken 54 were carried out on tuberculous patients and were mainly orthopaedic in nature. In addition to these the theatre staffs undertook 1,176 minor operative procedures and surgical dressings.

Dental Department.—The visiting dentist examined 667 patients, of whom 427 received treatment. Of these 29 required general anaesthetics. In all 761 extractions were carried out. Conservative measures undertaken included 126 fillings, 22 dressings, and 10 scalings. Two partial dentures and one full upper denture were supplied.

Physio-therapeutic Department.—During the year 189 patients received 6,254 treatments as follows:—Massage 4,919; Medical Gymnastics 1,035; Medical Electricity 239; and Heat Therapy 61. In addition 23 muscle tests were carried out.

X-ray Department.—The number of patients examined radiologically was 1,741. Films to the number of 4,088 were taken, and 83 screen examinations made. Of the patients 1,024 were tuberculous subjects, and of these 148 attended as out-patients.

Laboratory.—A total of 1,657 specimens were examined in the Laboratory. About three-quarters of them were for the determination of the presence or absence of the Tubercle Bacillus.

Education.—In the course of the year 77 names were added to the school register and 97 scholars were discharged. The average number of scholars on the roll was 85, with an average attendance of 74. These received half-time instruction on the usual lines from two full-time teachers.

TABLE SHOWING CASES DISMISSED OR DIED IN HOSPITAL DURING THE YEAR 1940, WITH AGE AND SEX DISTRIBUTION, LOCATION OF DISEASE, CONDITION ON ADMISSION AND DISMISSAL, AND AVERAGE DURATION OF RESDENICE.

Distribution of Disease	Age and Sex Distribution												Condition on Admission									Condition on Dismissal											Average Duration of Residenc (Days)
	Males						Females							General				Local				General							Local					
	Years						Years																										
	−1	−5	−10	−15	+15	Total	−1	−5	−10	−15	+15	Total	Total	Good	Fair	Poor	Very Poor	Moribund	Early	Intermediate	Advanced	Healed (Def.)	Very Good	Good	Fair	Poor	Transferred	Irreg. Dismiss.	Died	Not Improved	Improved	Much Improved	Healed	
Abdomen	—	10	5	3	—	18	1	1	3	6	—	11	29	—	6	19	4	—	15	8	6	—	15	5	—	—	1	2	6	7	2	4	16	261
Spine	—	1	1	1	—	3	—	1	1	2	4	8	11	1	4	4	—	2	3	1	5	2	5	—	—	—	2	1	3	4	2	—	5	215
Dactylitis	1	2	—	—	—	3	—	3	—	1	—	4	7	—	5	2	—	—	3	3	1	—	2	3	—	—	2	—	—	—	1	2	4	232
Other Bones ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hip	—	3	3	2	1	9	—	1	1	3	—	5	14	3	8	1	2	—	9	1	1	3	11	—	—	—	—	1	2	2	—	1	11	475
Knee	—	—	2	2	—	4	—	1	2	1	1	5	9	—	8	1	—	—	4	1	2	2	5	1	—	—	3	—	—	—	2	5	2	252
Ankle and Tarsus...	—	—	3	2	—	5	—	2	3	2	—	7	12	1	7	4	—	—	5	4	3	—	5	—	—	—	6	1	—	—	7	1	4	151
Sacro-Iliac	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Shoulder	—	1	—	—	—	1	—	—	—	3	—	3	4	—	3	1	—	—	2	1	1	—	3	—	—	—	1	—	—	—	1	1	2	160
Elbow	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Wrist and Carpus ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Joints ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cervical Glands ...	—	—	1	2	—	3	—	—	1	—	—	1	4	1	1	2	—	—	1	1	2	—	2	2	—	—	—	—	—	—	—	2	2	163
Skin & Soft Tissues	—	—	—	1	—	1	1	—	—	—	—	1	2	—	2	—	—	—	2	—	—	—	1	—	—	—	1	—	—	—	1	—	1	146
Genito-Urinary ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary ...	—	24	19	9	12	64	—	8	14	33	41	96	160	1	54	66	36	3	104	27	29	—	43	57	1	—	4	18	37	50	7	58	45	299
Multiple	—	—	—	1	—	1	—	1	—	1	—	2	3	—	—	—	1	2	2	1	—	—	—	—	—	—	—	—	3	3	—	—	—	17
Orthopaedic ...	1	—	4	1	—	6	—	—	1	—	—	1	7	1	6	—	—	—	3	—	4	—	7	—	—	—	—	—	—	—	—	3	4	126
Other	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total .	2	41	38	24	13	118	2	18	26	82	46	144	262	8	104	100	43	7	153	48	54	7	99	68	1	—	20	23	51	66	23	77	96	274

PART III.

OUTDOOR MEDICAL SERVICES AND GENERAL HOSPITALS.

Outdoor Medical Services.

The Outdoor Medical Service for the treatment of the sick poor continued as previously without any important administrative changes.

The following is a table showing the work done by the medical staff compared with the previous year :—

	Visits.	Consultations.
1939	70,019	282,276
1940	62,359	187,797

The total number of units of service rendered was 346,476, as compared with 459,487 in the previous year, a reduction of 24·5 per cent. 316,789 units, or 91·5 per cent., represent service rendered by the whole-time medical staff, the remainder being the work done by the part-time staff. (One consultation at a clinic equal to 1 unit ; one domiciliary visit equal to 2½ units ; one session at Welfare Department equal to 2½ units.)

At the end of the year there were 29 whole-time and 9 part-time medical officers in the service.

The decline in the amount of work done is a reflex of increasing employment in the city, and is to a lesser extent attributable to evacuation of school and pre-school children. The medical staff were also employed, as in previous years, in reviewing recommendations for hospital treatment, a necessary duty in order to ensure that the best possible use is made of the accommodation.

General Hospitals.

Emergency Hospitals Scheme.—The erection of hutted annexes at Robroyston, Mearnskirk, Gartloch, and Lennox Castle was completed and equipment continued to be issued during the year from the Central Government Department. The Emergency Hospitals were not called upon for the treatment of air raid casualties, with the exception of Knightswood, to which a few were admitted following a raid. Military,

Naval, and Air Force patients were treated under the Emergency Hospitals Scheme at Gartloch, Mearnskirk, Stobhill, and Southern General, where beds are reserved for such cases. Military Registrars with the necessary staff have been appointed at Gartloch and Stobhill.

In September, 1940, on instructions from the Department of Health, a number of beds in the General Hospitals were cleared in anticipation of the occurrence of air raids. Thus in August the total number of cases in the hospitals was 2,474, and at the end of September the figure was reduced to 2,075. In a comparatively short time, however, the figures rose to their normal level.

The following table shows the average daily number of patients in residence in the four General Hospitals and the highest and lowest numbers :—

	Stobhill.	Eastern District.	Western District.	Southern General.
Average daily number in residence in 1940	1,372	286	223	694
Highest number in residence in 1940	1,574	345	279	780
Lowest number in residence in 1940	1,023	216	144	557
Resident on 31st December, 1940	1,342	283	207	708

The total number of admissions in 1940 was 1,900 in excess of the previous year.

Air Raid Precautions.—Progress was made in the erection of surface shelters for patients and staff. Sandbag revetments were by the end of the year largely replaced by brick baffles. The A.R.P. arrangements in hospitals were put on a regular footing by forming squads from the male staff and putting them on rosters of standby duty.

Training of Nursing Auxiliaries.—About 80 classes were held at the General Hospitals, and some 2,500 auxiliaries trained—a large proportion of whom, however, offered only part-time service. No call was made on the latter, and only a limited number of full-time members were posted to hospitals.

STOBHILL, EASTERN, AND WESTERN DISTRICT HOSPITALS.

The reservation of beds in Stobhill for military sick was continued.

Staff—Medical.—The recruitment of resident staff presented no great difficulty during the year. Newly-qualified doctors are not called to the Services until six months after registration; this deferment is in order to enable them to acquire hospital experience before joining the Forces. In many cases their services have been available in the hospitals for a second and third term of six months.

Out-Patient Departments.—Out-patients were seen and treated at the three hospitals as undernoted:—

	Stobhill.	Eastern District.	Western District.
Number of Cases attending as Out-Patients	6,552	3,641	7,504
Number of Attendances	14,870	9,825	32,671

These patients attended for X-ray examination or for treatment in one of the special departments. In the Western District Hospital, however, a considerable number of minor casualties were treated. The out-patient clinics also are used for the follow-up and after-care of patients who have been discharged from hospital.

Dental Treatment.—Dental treatment was provided for both out-patients and in-patients at the three hospitals. The total amount of work done, however, shows a reduction compared with the previous year.

Laboratories.—The following table shows the work of the Bacteriological Laboratory:—

Autopsies	344
Histological Reports	857
Biological Tests	67
Bacteriological and Serological Reports	10,078
Wassermann Reactions	9,171
Kahn Tests	4,445
Colloidal Gold Tests	266

Biochemistry.—The new Biochemical Laboratory at Stobhill, under the charge of Professor Morris, was officially opened, and is now performing valuable work both in routine examination of patients and in research.

Refereeing of Cases.—Special cases where doubt has arisen as to the patient's capacity for work are referred to the Board of Referees at Stobhill. The total number of cases so referred throughout the year was 1,146, an average of 22 per week.

Electro-Medical Departments.—The following table shows the work of the Electro-Medical Departments:—

	Stobhill.	Eastern District.	Western District.
Number of Radiographic Films taken ...	11,377	329	2,732
Number of Barium Meals	1,103	—	—
Number of Deep Therapy Treatments ...	2,810	—	—
Number of Cases treated by Radium ...	34	—	—
Number of Sunlight Treatments given ...	891	519	795
Number of Cases treated by Massage ...	1,475	173	161
Number of Massage Treatments given ...	17,434	2,582	4,607
Number of Cases treated by Electricity	431	134	135
Number of Electrical Treatments given	5,955	2,265	2,952

SOUTHERN GENERAL HOSPITAL.

The daily number of patients in residence and highest and lowest figures for 1940 are shown on page 100.

Progress in the reconstruction has been held up largely on account of war conditions, and some 200 beds are still out of commission.

Out-Patients.—Out-patient attendances numbered 12,110, compared with 12,332 in the previous year. The following table shows the work in more detail:—

REPORT OF PATIENTS AND ATTENDANCES AT OUT-PATIENT DEPARTMENT FOR YEAR ENDED 31ST DECEMBER, 1940.

	Persons Attended.	Total Attendances.
Medical and Surgical	687	4,506
Nervous Diseases	67	284
Skin Diseases	204	1,217
Diabetes	58	822
Ear, Nose and Throat	178	721
Ante-Natal	360	1,396
Post-Natal	311	809
Diseases of Women...	123	272
Dental	380	2,083
	2,368	12,110

Surgical Department.—Operations under general or spinal anaesthesia totalled 2,093, as compared with 2,046 in the previous year.

Pathology and Bacteriology.—Laboratory work is carried out at Stobhill. Limited facilities, however, are shortly to be available at the Southern General, and a technician will be appointed.

X-Ray Department.—The following table shows the amount of work done in the X-Ray Department :—

Barium Meals—	
In-Patients	300
Out-Patients	28
Screen Examinations—	
In-Patients	338
Out-Patients	30
Number of X-Ray Films—	
In-Patients	6,501
Out-Patients	1,070

OBSTETRICAL WORK IN THE GENERAL HOSPITALS.

The following table summarises the work in the Obstetrical Departments of the four General Hospitals :—

GENERAL HOSPITALS—OBSTETRICAL SECTIONS.
DISMISSALS DURING 1940.

Cases delivered in Hospitals—	Stobhill Hospital.	Eastern District Hospital.	Western District Hospital.	Southern General Hospital.	Total.
Dismissed well	1,176	538	936	1,219	3,869
Died in Hospital	10	2	7	8	27
Transferred	22	3	1	4	30
Total dismissals of cases which were delivered in Hospital	1,208	543	944	1,231	3,926
Method of admission of above Cases—					
Admitted during ante-natal period for treatment and delivered in Hospital ...	67	16	30	97	210
Admitted to Labour Ward	925	527	913	1,132	3,497
Admitted to Labour Ward (via Glasgow Royal Maternity Hospital) ...	216	0	1	2	219
Total	1,208	543	944	1,231	3,926
Cases admitted during ante-natal period — Dismissed undelivered	235	84	56	353	728
Cases admitted after delivery	65	2	1	31	99
Abortions and Miscarriages...	560	89	41	342	1,032
Infants dismissed alive ...	1,098	498	888	1,148	3,632
Infants Stillborn	59	18	37	64	178
Infants neo-natal deaths ...	72	29	30	40	171
Total	1,229	545	955	1,252	3,981

In all the number of cases delivered in hospital shows a slight decline from 4,081 in 1939 to 3,926 in 1940. Abortions and miscarriages show a slight increase from 972 to 1,032.

The incidence of puerperal morbidity and mortality is shown in the following table:—

PUERPERAL FEVER AND PYREXIA.

Hospital.	No. of Cases.		Cases per 1,000 Births.		No. of Deaths		Deaths per 1,000 Births.		Case Mortality Fever
	Fever.	Pyrexia.	Fever.	Pyrexia.	Fever.	Non-Septic.	Fever.	Non-Septic.	
Stobhill	7	5	5·4	3·9	—	25	—	19·3	—
Eastern District ...	12	5	21·7	9·0	—	4	—	7·2	—
Western District ...	3	12	3·2	12·9	1	9	1·1	9·7	33·3
Southern General ...	8	24	6·4	19·3	1	14	0·8	11·3	12·5
Total... ...	30	46	7·6	11·4	2	52	0·48	12·9	6·7

Note.—Number of deaths associated with General Hospitals equals 56.

1 non-septic death in Southern General Hospital included in above table died at home.

2 non-septic deaths in Stobhill Hospital are excluded because the patients were delivered outside of Hospital.

The number of deaths associated with the Obstetrical Departments was 56, compared with 48 in the previous year. The death-rate per 1,000 births was 13·38, as compared with 11·0 in the previous year, but the death-rate from puerperal sepsis was reduced from 1·7 to ·48 per 1,000 births. The case mortality from sepsis fell from 15·2 per cent. to 6·7 per cent., and this is probably associated with improved methods of treatment.

PART IV.

MENTAL SERVICES.

During the year no material change occurred in the position of the mental hospitals in respect of accommodation, which still continues to be taxed to the full. The reception and sanatorium blocks at Woodilee are not yet ready for patients, owing to war restrictions affecting the supply of materials, and the extensions at other institutions referred to in previous reports have also been held up for the same reason.

The demand for accommodation was slightly below the average of recent years, in spite of the nervous and mental strain due to war conditions. This is in conformity with what appears to have occurred throughout the country generally. There has been a diminished tendency towards the development of psycho-neuroses and psychosis since the beginning of the war, which would appear to be due, in part at least, to the greater scope for the outlet of energy through war work and service and to the greater satisfaction engendered by doing something really worth while for the general good of the community. So long as work is available, coupled with the satisfactory motive of winning the war, there is not likely to be any great increase in the number of fresh cases of nervous breakdown or insanity. There may be a marked reaction when the war ends and those engaged at munition works and on service of other kinds are thrown on to the labour market. In order to avoid a great increase in the numbers of those suffering from nervous and mental ailments it will be necessary to ensure that as many as possible are reabsorbed into useful employment of one kind or another.

Overcrowding exists to a marked degree in all the Glasgow mental hospitals, but this condition exists in all mental hospitals throughout the country and has been aggravated by the conversion of several mental hospitals into emergency casualty hospitals, with the consequent evacuation of the patients therefrom to the other hospitals. When peace returns and the hospitals which have been taken over revert to their proper function as mental hospitals it will be possible to ensure a greater degree of comfort and safety for the insane.

Admissions, Discharges and Deaths.—The number of certified cases admitted to the mental hospitals during the year was 288. This figure is 48 less than the number admitted during the previous year, which was well below the average for the preceding five years. Doubtless this was partly due to the difficulty in obtaining accommodation, which necessitated the retention of many certifiable cases in the observation wards of the general hospitals, but this state of affairs has existed for several years in an even more acute degree than during the past year. As has been noted in previous reports, the policy of admitting patients to the mental hospitals on a voluntary basis has not yet been adopted owing to this difficulty of obtaining accommodation for certifiable patients.

There were 3,163 patients under care during the year, a decrease of 330 from the number during the previous year. This apparently large increase is due to the transfer towards the end of 1939 of 279 patients to Lochgilphead and Gartnavel Mental Hospitals. The number remaining in the Corporation mental hospitals on 31.12.40 was 2,854, as compared with 2,885 on the corresponding date in 1939.

The number of patients discharged recovered was 104, of whom 78 were from Hawkhead. This hospital received more than fifty per cent. of the new admissions during the year.

The death rate still remains very low, as in recent years. The number of patients who died was 162, which is practically the same as during the previous year and is only four more than the lowest figure ever recorded. As in previous years, upwards of fifty per cent. of the patients who died were over sixty years of age at the time of their death. The commonest causes of death were cardio-vascular degeneration, respiratory diseases, and senile degeneration. Eleven patients died of general paralysis of the insane.

Of the patients discharged recovered the great majority were discharged within two years of admission. Thus 72 per cent. were discharged within one year, 11 per cent. within two years, 13 per cent. after two and within five years, and 4 per cent. after residence of more than five years. One male and four female patients were discharged recovered after continuous residence of more than five years. The opposite tendency is seen in the patients who died, upwards of 68 per cent. of whom had been resident for more than five years.

The causative factors in the production of mental disorders are extremely difficult to determine with any degree of accuracy. Constitutional and environmental factors both play an important part. Such factors as alcohol, climacteric, mental stress, and senility are amongst the more common assigned causes, while previous attacks were noted in a considerable proportion of the admissions. There is no evidence to indicate that the incidence of insanity has increased as a consequence of war conditions.

Air Raid Precautions in Mental Hospitals.—Satisfactory provision of air raid shelters for the patients has been made in all the mental hospitals, and arrangements have also been made for fire prevention patrols from amongst the members of the staff.

Patients in other Institutions.—At 31st December, 1939, there were still 802 patients, including Gartloch patients in Lochgilphead and Gartnavel, boarded out in Institutions belonging to other authorities. This number is decreasing slowly year by year through deaths and discharges. No large movement of patients from outside asylums to the Glasgow asylums has occurred during the year.

Admission of Lunatics from Prison.—Attention is again drawn to the large number of patients admitted to the Glasgow asylums at the instance of the Procurator-Fiscal under Section 15 of the Act of 1862. Seventy-four of these cases were admitted during the year, and although this number is much the same as for the previous year they go to swell the already large number of "Fiscal" cases under treatment. The restrictions necessarily imposed in connection with this class of patient react detrimentally on the ordinary patients who are treated alongside them. Ordinary patients resent being treated alongside so-called criminal cases, and a greater strain is thrown on the staff in watching the "Fiscal" cases owing to the fact that many of these patients are extremely dangerous in addition to being mentally unbalanced. No satisfactory solution to this problem will be found till increased accommodation is provided in a State institution for criminal lunatics.

Licensed Wards in Southern General Hospital.—These wards continue to be occupied to their full capacity by the more harmless type of chronic patient. During the year it was found necessary to set aside some of the accommodation for the treatment of intercurrent illness and infirmity occurring amongst the patients, most of whom are of the ambulatory

type. Previously when illness or infirmity supervened amongst the inmates of these wards the cases were transferred to mental hospitals for treatment, but owing to the shortage of accommodation in the mental hospitals this could not be carried out without delay.

Research.—In collaboration with the Director of the West of Scotland Neuro-Psychiatric Research Institute research in connection with the causation and treatment of mental disease continues to be prosecuted in all the mental institutions.

Dental Services.—Mr. Kyd, the dental surgeon to the mental institutions, carried out the following treatment during the year : 2,980 patients examined, including 13 who refused treatment ; 3,547 extractions ; 83 fillings ; 3 root treatments ; 23 dressings ; 91 scalings ; 176 dentures supplied ; 9 dentures remodelled ; and 143 dentures repaired. The mouths and teeth of the patients are carefully attended to, with noticeably good results reflected in improvement of their general health.

Certified Institutions for Mental Defectives.

Lennox Castle.—The number of certified defectives in this institution at the end of the year was 1,125, a decrease of 21 as compared with the previous year ; 52 were admitted, 57 were discharged, and 16 died during the year. Of the admissions, 27 came from their own homes, 6 from other certified institutions, 17 from the municipal general hospitals, and 2 from Barlinnie Prison. Fifty patients were discharged to the care of friends, three on expiry of certificate, and four were transferred to other institutions.

Since the male division of this institution was taken over by the Government for use as an Emergency Hospital the male patients have been accommodated in six of the female division villas and in huts. As the huts are not comparable to the villas in respect of accommodation, considerable overcrowding exists despite the reduction in the number of patients.

Dr. Curran, the Medical Superintendent, in his report states : " The admission of cases under Section 9 of the 1913 Act is causing some difficulty. Apart from the increased supervision which this type of case requires, it may be necessary to have iron bars on the windows to prevent escapes. These cases are mostly criminal defectives with a fairly high intelligence quotient. They are restless, resentful of discipline, and have sufficient organising ability to influence the more simple feeble-minded to escape and revolt. A further drawback is that the certification of these patients is done by the Medical Superintendent

and his assistants, who must subsequently appear in court and give evidence of deficiency in the patient's presence. This procedure creates in the patient a lack of trust in the doctor and a feeling of enmity which makes psychological treatment almost impossible." Steps are being taken to avoid the necessity in future of the certification of these patients by the Assistant Medical Officers.

As in other mental institutions, difficulty has been experienced in the recruitment of nursing staff, particularly on the female division.

Caldwell House Certified Institution.—This institution has again been taxed to its full capacity during the year. On 31st December, 1940, the number of patients was 121 (81 male and 40 female), an increase of four over the corresponding figure for last year. Ten patients were admitted, of whom four were admitted from other hospitals and six from their own homes; two patients were transferred to Lennox Castle on attaining the age of 16 years, and two were discharged to the care of their parents. Two children died—one a boy who died in Shieldhall Hospital from scarlatina and the other a girl who died as the result of epilepsy.

During the winter a concert was given by the patients for parents and friends. The performance was exceedingly good, and reflects great credit on the Matron and her staff for their untiring patience and sympathy in brightening the lives of these low-grade uneducable children.

Mental Observation Wards.

During the year the number of admissions to the mental observation wards was 1,656, and the total number of cases treated was 2,017. These figures compare with 1,720 and 2,148 respectively for the previous year.

Of the 2,017 patients treated, 1,088 (54 per cent.) were sufficiently recovered to be sent home or, where they had no home, to a Public Assistance institution; 331 patients (16 per cent.) died, the majority of whom were old people admitted suffering from senile dementia; and 218 (10.8 per cent.) were certified and transferred to asylums for further treatment.

Good results continue to be obtained from modern methods of treatment, such as malarial treatment of general paralysis and the use of Cardiazol in the treatment of schizophrenia and allied conditions. In this connection it is interesting to record that a letter has been received from a man who a few years ago was admitted to one of the wards in Stobhill suffering from advanced general paralysis. After

treatment by Malaria and Tryparsamide he was allowed home to continue treatment as an out-patient at one of the Corporation dispensaries. He received further treatment by Tryparsamide until his serological reactions became negative, when he returned to his former occupation in the Merchant Service. In his letter he states that he has now got back to his former position of Chief Officer and that he is doing well and enjoying his work.

In another case of sever hypovitaminosis the patient was in an extremely poor state of health on admission. The assistance of Dr. Ford Robertson, Director of the West of Scotland Neuro-Psychiatric Research Institute, was obtained in investigating the case, and it was found that there was an extreme degree of deficiency of Vitamin B1. Treatment directed to correct this deficiency produced an excellent result, and the woman was discharged completely recovered. To quote her own words on discharge, she was in better health than she had been for over twenty years.

Good work continues to be done at the Psychiatric Clinics at Cochrane Street and at the Out-Patient Department of the Southern General Hospital. At both of these clinics one session per week is held, but it may be necessary to increase the number of sessions in the near future owing to the number of patients coming for advice.

As indicated in last year's report, the publication of several of the statistical tables relating to the mental hospitals and of individual hospitals' reports is being discontinued during the war, but in the following tables will be found the more important details of the admissions, discharges, and deaths for the year.

SHOWING NUMBERS ADMITTED TO GLASGOW MENTAL HOSPITALS AND THE CHANNELS THROUGH WHICH THEY WERE ADMITTED DURING THE YEAR 1940.

	Gartloch		Hawkhead		Woodilee		Stoneyetts	
	M.	F.	M.	F.	M.	F.	M.	F.
Observation Wards ...	—	—	31	45	24	37	13	16
Home, Police Stations, Infirmary, etc. ...	—	—	9	7	15	7	1	—
Transferred from other Asylums or Certified Institutions	1	—	5	1	2	—	1	—
H.M. Prisons	—	—	43	4	21	6	—	—
Totals	1	—	88	57	62	50	15	16

Mental Observation Wards.

	Stobhill.			Eastern District.			Southern General Hospital.			Total.		
	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total
Remaining at 31st December, 1939 ...	90	106	196	29	32	61	75	29	104	194	167	361
Admitted during 1940	479	499	978	80	72	152	355	171	526	914	742	1656
Number treated during 1940	569	603	1174	109	104	213	430	200	630	1108	909	2017
Number discharged Home or transferred to Poorhouse during 1940... ...	347	309	656	58	44	102	231	99	300	636	452	1088
Number died during 1940	92	113	205	10	14	24	76	26	102	178	153	331
Number removed to Asylum	41	57	98	13	15	28	46	46	92	100	118	218
Number remaining as at 31st Dec., 1940	89	126	215	28	31	59	77	29	106	194	186	380

Admissions, Discharges and Deaths in the Mental Hospitals during 1940.

	Woodilee.			Hawkhead.			Stoneyetts.			Totals.		
	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total
On Register at 31st December, 1939	712	643	1355	690	571	1261	131	119	250	1533	1333	2866
Number of Cases admitted during the year	62	50	112	88	57	145	15	16	31	165	123	288
Total Cases under care during the year	774	693	1467	778	628	1406	146	135	281	1698	1456	3154
Cases discharged and died during the year—												
Recovered	14	7	21	46	32	78	3	2	5	63	41	104
Not Recovered	15	6	21	3	—	3	—	2	2	18	8	26
Died	47	48	95	26	23	49	10	8	18	83	79	162
Transferred to other Institutions in Scotland and boarded out in private dwellings	9	1	10	7	9	16	—	1	1	16	11	27
Total Cases discharged and died during the year	85	62	147	82	64	146	13	13	26	180	139	319
Total Cases on Register at 31st Dec., 1940	689	631	1320	696	564	1260	133	122	255	1518	1317	2835

Note.—The figures shown in the above Table include the Gartloch patients who were transferred to the above mental hospitals in September, 1939. There are 19 male patients still remaining in the Farm Colony at Gartloch. These patients are on parole and are all employed on the farm and in the grounds of the Institution.

Forms of Mental Disorder in Admissions, Recoveries, and Deaths in Mental Hospitals during 1940.

	Admissions.			Recoveries.			Deaths.		
	M.	F.	Total	M.	F.	Total	M.	F.	Total
Inherent Developmental Defects—									
Mental Deficiency—									
(*a*) Idiocy ...	—	—	—	—	—	—	—	—	—
(*b*) Imbecility ...	—	1	1	—	—	—	—	2	2
(*c*) Feeble-mindedness... ...	8	8	16	4	—	4	1	2	3
(*d*) Moral Imbecility	9	5	14	—	—	—	1	1	2
Epileptic Insanity	3	4	7	—	1	1	7	2	9
Schizophrenia—									
(*a*) Simple ...	26	5	31	13	2	15	5	4	9
(*b*) Hebephrenic ...	3	5	8	1	6	7	2	2	4
(*c*) Katatonic ...	7	—	7	—	—	—	1	3	4
(*d*) Paranoid ...	10	3	13	3	—	3	3	—	3
Paraphrenia ...	5	3	8	1	1	2	1	1	2
Paranoia	2	6	8	—	—	—	1	1	2
Psychoneurosis—									
(*a*) Neurasthenia...	1	—	1	1	—	1	—	—	—
(*b*) Psychasthenia	1	—	1	—	—	—	—	—	—
(*c*) Hysteria ...	5	—	5	4	—	4	—	—	—
Toxic and Confusional Psychosis—									
Manic Depressive Psychosis	26	42	68	13	19	32	5	6	11
Acute Delirium ...	—	—	—	1	—	1	—	—	—
Acute Confusion ...	12	—	12	2	3	5	2	1	3
Stupor	—	—	—	—	—	—	—	—	—
Exhaustion Psychosis	—	—	—	2	—	2	—	—	—
Alcoholic Insanity—									
(*a*) Delirium Tremens	—	—	—	—	—	—	—	—	—
(*b*) Mania a Potu	—	—	—	—	—	—	—	—	—
(*c*) Korsakoff's Psychosis	—	—	—	—	—	—	—	—	—
(*d*) Chronic Alcoholic Insanity	11	4	15	8	3	11	1	—	1
Cocaine, Morphine, and other Drug Insanities—									
Involutional Psychosis	2	8	10	—	5	5	—	1	1
Acquired Defects—									
Pre-senile Psychosis	6	2	8	2	1	3	3	—	3
Senile Dementia—									
(*a*) Simple ...	2	6	8	—	—	—	17	16	33
(*b*) With Mania ...	—	3	3	—	—	—	—	3	3
(*c*) With Depression	—	1	1	—	—	—	—	4	4
(*d*) With Presbyophrenia	—	2	2	—	—	—	—	1	1
General Paralytic Dementia	12	—	12	4	—	4	10	2	12
Traumatic Dementia	—	4	4	—	—	—	—	3	3
Organic Dementia—									
(*a*) Tumor ...	—	2	2	—	—	—	—	—	—
(*b*) Gumma ...	—	—	—	—	—	—	—	—	—
(*c*) Arterio-sclerosis	7	6	13	2	—	2	6	10	16
(*d*) Meningitis ...	—	—	—	—	—	—	—	—	—
(*e*) Encephalitis ...	7	1	8	—	—	—	1	—	1
(*f*) Other Cerebral Diseases	—	2	2	—	—	—	—	—	—
(*g*) Guntington's Chorea ...	—	—	—	—	—	—	—	—	—